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PSYCHOLOGY AND PHILOSOPHY

————— ⬥⬥⬥ —————

I.—THE CONTINUITY OF SPACE AND TIME.

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THE question I wish to discuss is how we ought to conceive the relation between points of space and extension, between instants of time and duration. There is, if I am not mistaken, a fallacy into which we are liable to fall in considering this matter; it leads to a dilemma, both horns of which are equally unsatisfactory; and when we avoid this fallacy, the right conception of the relation becomes clear.

I shall take for granted, in the following argument, that finite lengths of space and finite intervals of time really are infinitely divisible, as is commonly assumed.

By a point I mean of course a position without extension, by an instant a now without duration. It is not necessary, I think, to begin by asking how we come by these conceptions. We certainly possess them, and assume that in some sense they are applicable to Nature. Prof. Whitehead's method of "extensive abstraction" presents itself as a way in which we may have come by them. Certainly we see, as soon as we have learned to discriminate, areas within areas, of increasing smallness. I shall be in a better position to explain how far I can accept Prof. Whitehead's doctrine when I have indicated what I take to be the fallacy.

Avoidance of this fallacy, should the reader agree with me that it is one, will be the thread enabling us to find our way through what Leibniz called "the labyrinth of the continuum". I should feel less confidence that this is the true thread if it did not appear to be that followed by Leibniz himself.

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I.

The Dilemma.

The view usually taken is that points and instants are *mere boundaries*. Let us consider the consequences of this view; and let us start from the successive divisions and sub-divisions of a line.

We are apt to reason in the following way. Before we begin to divide a line, all the extension lies between the end-points; and as we proceed to insert points, the extension still falls outside and lies between them; and this is true *ad infinitum*. Furthermore we do not really *insert* the points; we find them, as definite positions in the line—the line is not simply divisible, but already divided, by the positions which are in it. Now it cannot be supposed that by in-creasing the number of the points to infinity the extension is made to be within them. The points and the extensions must, to the end, remain mutually external. Consequently the infinite dividedness of the line signifies that it is com-posed of an infinite number of infinitesimal extensions, with an infinite number of points one of which separates each adjacent two of them.

The same conclusion seems to follow if we consider the nature of a point. A point is, by definition, unextended. When we imagine that, if there were an infinite number of them, they might fill out a line or melt together into a con-tinuum, we are inadvertently endowing them (so we say to ourselves) with some degree, however slight, of extension. But this contradicts the nature of a point. Hence an exten-sion cannot be composed of points, but only of an infinite number of infinitesimal extensions.

But each of these must be bounded by points. Thus it is not a question of infinitesimal extensions *or* points, but both are equally necessary to form the continuum.

Before attempting to criticise this reasoning, let us make the parallel reasoning in regard to time.

Change is in its essence a passage from one state of being to another state, and these states cannot be simultaneous; every such passage occupies an interval of time, the limits of which are instants. If, for example, a body moves from one position to another, it must have been in the first position for at least an instant, and for at least an instant in the last; and if it has moved a finite distance, it must have been occupied for a finite interval of time in doing so. During this time it must have passed through all the intervening

positions, and, if it was moving, it can have been in each of
these positions only for an instant.   Thus an interval of time
is not only divisible but divided by an infinite number of in-
stants.   But these instants are without duration—if they
had duration they would not be instants.   Hence all the
duration falls *between* the instants, and is divided by them
(since they are infinite in number) into an infinite number
of infinitesimal durations, corresponding to the infinite number
of infinitesimal extensions through which the body must move.

What will doubtless appear to many readers to be the error
in this reasoning is that it introduces infinitesimals.   They
will accept the necessary distinctness of points and extensions,
of instants and durations, but deny that there can be any ex-
tensions or durations which are at once infinitesimal and real.
Without examining for the moment whether this criticism is
justified, let us raise the question, in which of these two
aspects of space and time what is real or existent may be
said to be contained.

And, first, let us ask this question with respect to space.
If the real were lodged solely in the points, and not in the
infinitesimal extensions that separate them, these extensions
would fall outside it and reality in its proper nature would
not be extended.   An infinite number of punctiform reals (so
we reason) would be no more extended than a single one.
But in experience, from which we derive our idea of the real,
it is found to be extended.   Consequently we must decide for
the extensions and not for the points.   The real could not,
however, be extended unless it consisted of separate parts ;
of separate parts, indeed, *ad infinitum*, as we have seen ; and
its constituents must therefore be in the infinitesimal exten-
sions, of which the points are merely the boundaries.   Thus,
spatially considered, the real apparently consists of an in-
finite number of infinitesimally extended parts.   So far,
apart from the question of infinitesimals, no obvious error
appears in the argument.

If what is real lies in the infinitesimal extensions, it seems
to follow that, in the case of time, it must lie, not in the in-
stants, but in the infinitesimal durations.   An instant, it
might be said, is no time at all; it is a mere boundary
between the past and the future.   Unless a thing endures,
for at least an infinitesimal length of time, it cannot be said
to exist.

The difficulty of this is that it makes the present—that
"mere boundary between the past and the future"—unreal.
Perhaps it will be replied that the real present is not an

instant but an infinitesimal duration. In that case, the present would be separated by an instant, a mere boundary, from the past, and by another instant from the future. Now time is originally real only in the form of present time; past time meaning time that once *was* present, and future time, time that *will be* present. We may call this the primary reality of the present. The primary reality of the present, it may be said, would be equally well secured by making it an instant or by making it an infinitesimal duration : for in either case only one such would be real at a time, and all earlier ones would be past and all later ones future.

Moreover, this view seems to solve the difficulty before mentioned, that, if what is real lies in the instants, duration necessarily falls outside it, so that the real cannot be said to endure. Prof. Whitehead has made much of this difficulty (Symposium on " Time, Space, and Material," in *Arist. Soc. Proceedinqs*, Supplementary Vol. II., pp. 44-46), urging that the conception of time as composed of successive instants, and of Nature as existing in only one of them at a time, allows no place for "velocity, kinetic energy, acceleration, force, and mass," which have to be added as " an appendix to the book of Nature ". An instant, he says, is " only a complex abstract conception which is useful for the simple expression of certain natural relations ".

Unquestionably, whoever maintains that the real exists only in instants, and in only one instant at a time, is under obligation to indicate some form in which velocity, acceleration, and the rest can be contained in the instant.

But the difficulty of identifying the present with any duration, however short—even though it were but infinitesimal—is that every duration consists of parts, which do not exist at once. There can be no duration that does not contain a before and an after, a series of earlier and later parts; indeed, in any finite duration at least, the number of the successive parts must be infinite. But, in that case, *each* of these parts is a present, and the whole which they form, not existing at once, cannot be a present. The present, it is quite clear, can only be an instant.

But, if so, it is in the instant primarily, and only secondarily and by consequence in the durations, that the real must be contained.

The dilemma is, then, that if we conceive the durations and the instants as mutually external, and the latter as merely bounding the former, we are forced either to lodge the real in the instants, and so deprive it of the benefit of enduring, or to lodge it in the durations, and so deprive it of the power of ever being a present.

II.

The Fallacy.

I must beg the reader's indulgence if, in what follows, I make statements which appear to him to be in contradiction with established truths. I ask him to suspend his judgment until I have had time to put my view fully before him.

The nature of continuity has usually been discussed with special reference to space, and the application then made (if made at all) to time. But there are advantages in considering the continuity of time first.

My view rests on the following three points :—

1. The present, since it alone is ever real, is *not a mere boundary*. It is not extended temporally (*i.e.*, it does not endure), but neither is it empty. It is one of the constituent parts of time.

2. The present cannot of course be two (or more) instants, but only one. But since, at that instant, all earlier instants are past and no longer real, and all later instants are future and not yet real, the present instant must be *distinct* from all other instants.

3. And, since the instants come in single file, and some future instants are farther away from and others nearer to the present, there must be one future instant which is nearest to the present, or *next* to it.

If the distinctness of the instants and the fact that they are arranged in order be considered together, the inevitableness of this relation of nextness appears clearly.

The prejudice, which leads us to conclude that two instants cannot be next to each other, is due wholly to the false notion that the present instant—for instants never are, except when they are present—is a mere boundary. A boundary must bound (on each side) something different from itself ; if two boundaries were next to each other, they would (on one side) bound nothing—that is, delimit the parts of something other than themselves—and therefore they would fuse and become one. But to two instants, which are distinct in their reality (*i.e.*, which contain distinct states of the real), this reasoning does not apply.

It is therefore perfectly possible for two instants to be next to each other, provided they are distinct from each other and contain immediately successive states of the real.

One further observation must be made, in order that we may have in hand all the materials for a theory of temporal continuity.

4. Instants which are next to each other may be said to be *joined*, and I shall call the connexion which binds them together a *junction*. But instants which are not next to each other—being separated from each other by any number of intervening instants—are *disjoined*, and there is *no* immediate connexion between them. Disjunction is as important to the conception of continuity as junction. It will be found, I think, to be closely connected with the now generally admitted non-existence of action at a distance.

The above four points, (1) the reality of the instants, (2) their distinctness from one another, (3) the nextness of any two immediately successive instants, that is, the junction between them, (4) the disjunction from one another of all instants that are not immediately successive, seem to me, when taken together, to form a complete analysis of temporal continuity.

What it means, to be sure, for two instants to be next to each other—how they can be distinct, and yet joined, in the way which we call temporal sequence—still remains to be explained. I think it cannot be explained without passing away from mere time, and considering the real things that are in time. Before attempting to do this, we had better turn from time to space, and ask how far our analysis can be made to explain the relation between points and extension. But I may say now that, in my opinion, temporal sequence depends on the fact that the real of one instant *brings forth* the real of the next.

I will now draw up an argument in regard to space parallel to that which I have used in the case of time.

1. If a line intersects another, they have one, and only one, point in common. Therefore this point is *distinct* from all the other points in the line.

2. If one point in a line is distinct from the others, then every point in the line must be distinct from every other. And if the points are arranged in order, so that some points are farther away from and others nearer to the point of intersection, there must (if the points are distinct) be one point on each side which is nearest to this point, or *next* to it.

3. This is possible, to be sure, only on the assumption that points—like instants—are not mere boundaries, but constituents of the line, and the *loci* of reals. But if what is real may and must exist in instants, despite the absence in them of temporal extension, why is it not conceivable that, in the case of space, what is real exists in points? Why may not space be actually composed of points, distinct from but next to one another?

4. Of course, only a certain number (perhaps infinite) of points are next to and spatially joined with a given point, and all other points are disjoined from it and connected with it only through the medium of the intervening points.   And this, again, is in strict accord with the principle of the non-existence of action at a distance.

Thus (1) the reality of points, (2) their distinctness from one another, (3) the nextness of a point to certain others, that is, the existence of junctions between them, and (4) the disjunction of the point from all other points, seem to afford an analysis of spatial continuity as defensible as the analysis which we have previously made of time.

A word must now be said as to the right way of conceiving junctions. *It is important not to conceive them as between the points in a spatial sense.* To do so is to fall into the fallacy which I am engaged in explaining. If two points are next to each other, *there is no place between them;* if there were, each of the points would be next to the place, but they would not be next to each other. Thus it is impossible to draw a line between two adjacent points : the line must pass either through one point or through the other. The points are, indeed, distinct—they are really two, not one —but there is no gap of any sort between them.

Hence a junction is a bond that includes, not a boundary that separates. It is between the points only in the sense in which friendship is between friends.   In other words, it is not a thing on the same plane with the elements that it unites.   Mr. Russell has, I think, expressed the right view (*Contemporary British Philosophy*, Vol. I, p. 369) when he says that a relation is an entity of a different "type" from the things which it relates.

In what sense, then, is division of a line possible ?   Since a junction is not a place, there is no *place* where a line can be divided except a point.   Ordinarily, in dividing a line, we choose some point, and consider as wholes first what lies on one side of the point and then what lies on the other.   But this is not true division, since the point is common to the two parts.   True division must come at a junction, and consist in distinguishing the part of the line up to a certain point, and the part from the next point onward.

It is evident that such division—by our attending successively to smaller and smaller parts—would conduct ultimately to points; though, if a line of finite length is infinitely divisible, an infinite number of divisions would be necessary in order to reach them.   The smallest possible bit of extension

would consist of two adjacent points. In the division of these from each other, extension would disappear.

But observe now that extension has been in process of disappearing from the very outset. When we made our first division of the line at a junction, we did so by ignoring and annihilating in thought, or at least withdrawing our attention from, that junction—which yet was essential to the continuity of the line; and with each successive division we have continued to do so, until at last only the points are left, with no junctions between them. Division and subdivision are thus a progressive process of abstracting from extension; and (since this process is only one of abstracting, and the junctions still remain in spite of our inattention to them) we may see in this a justification of Bergson's view—propounded, indeed, only with respect to time, but applicable surely to space—that the continuous is, in one sense, indivisible: namely, in the sense that its parts are not separable from each other without destroying the real continuity.

The idea that points—which seem, and in one sense are, mere zeros—may by their collocation constitute extension, is at first a strange and hardly conceivable one. But close consideration, I think, lightens the difficulty. If two points placed next to each other are larger than one, though it be but infinitesimally, a sufficient number of points next each to each may produce a more considerable largeness. If only a finite number of points are thus arranged, the product will be a line of infinitesimal length; if an infinite number, a line of finite length. This takes for granted, it is true, that the line of finite length really is infinitely divisible.

If there are no places between the points, this means that they completely fill out the line and make it continuous. In the same way, points may completely fill out a surface, leaving no empty area anywhere; they may completely fill out a volume.

We can now see where the fallacy lay in the reasoning which appeared to prove that, if what is real is contained in the points, extension must fall outside it.

Extension does not fall outside the real, because you must have two points which are next to each other—in other words, have *nothing* between them—in order to have even the smallest extension. A single point is not extended, but two points which are next to each other form an extension.

The fallacy lay in mistakenly conceiving the infinitesimal extensions as between the points spatially, whereas there is nothing between them. If there were something between them, either matter or space or anything whatever, each

point would be next to *it*, but they would not be next to each other. "Between" was understood in a spatial, though it was true only in a metaphorical sense—as when we say that two men, between them, may accomplish something. Only through this misunderstanding did all the extension appear to fall outside the points. In reality, the infinitesimal extension is not between the points, but *includes* or is composed of them.

Now let us apply the same analysis to time. Since I have admitted that points, though divisible from one another in the sense of distinguishable (for they are distinct), are not divisible in the sense of separate (for they are joined, and occur only as points in space), I shall not be unduly "spatialising" time if I maintain that it can be treated in an analogous way, and conceived as consisting of instants. There is really no difference between the case of space and that of time, except that the elements of the latter, being instants, are successive, which means that only one of them is real at once.

This peculiarity of time has the consequence that any instant or interval, looked at from the point of view of another instant or interval, is either past or future—*i.e.*, only *was* or *will be* real—so that its reality is secondary to and derived from the reality of a present instant. Thus pastness and futurity are not inherent: they are expressive of a point of view. Every instant, when alone it is real, is a present. Time is real only as a series of presents.

We have therefore only to consider this series of presents. Here the special difficulty attaching to the case of time begins to emerge. In the case of space, the two points forming a minimal extension exist at once; and it is therefore easy to understand their being next to each other. For the nextness is in the same instant of time as the points. Since two instants are not in the same time, and the junction between them cannot be either in the first instant or in the second, it seems at first sight as though it could not be at all.

But this is to demand that time itself should be in time— that succession, which is essentially a relation between two instants, should be in one of the instants that succeed each other. Evidently we must not ask that time should be in itself: and if our argument has shown that it is possible, in the abstract, for one thing to be next to another, we must be prepared to admit that, in the case of time, this nextness may assume the concrete form of *sequence*, since that is the only possible way of providing for time's existence.

We learn the existence of time, of course, through primary

memory, as we learn the existence of space through perception; and no one can doubt that temporal sequence is indeed a fact.

This granted, we have only to follow closely the analogy of the relation of points to extension in the case of space. We there found that the extensions do not lie outside the points, but include them, each smallest extension consisting of two adjacent points. In the same way, a duration does not lie outside of, and externally connect, two sequent presents, but consists of them in their immediate sequence. Thus joined, the two presents form an infinitesimal duration; an infinite number of infinitesimal durations—or (to analyse to the end) of instants with temporal junctions between them —form a finite interval of time; and finite intervals, similarly joined (and they cannot possibly be disjoined, except in thought), form all time.

What is there, on this theory, between two successive instants? *Nothing!* Not an interval of time, for both of them are necessary to form the smallest interval of time. Not an instant, for, if there were an instant between them, they would not be next to each other.   There is nothing between them except their distinctness and temporal nextness : and these are between them only in the sense in which friendship is between friends, or (to use a closer analogy) the filial relation is between father and son.   Then, in the literal sense of " between," there is nothing at all between them. One flows into the other; or, if we consider a long sequence, they flow in a smooth and continuous stream—a stream made smooth by the very fact that they are durationless instants. And they do so as much because of as despite their distinctness.

This absence of intervening elements removes the last difficulty, and makes it clear that Leibniz was not wrong in saying that time and space are essentially numbers of points and numbers of instants, arranged in their respective ways.

III.

The Reality of Points and Instants.

The one argument for this analysis which I have thus far offered is the nature of the present.   I believe this argument to be conclusive; but, as there is danger of its force being missed through a certain confusion, I will first refer to this source of possible misapprehension, and then re-state it.

It is important, in considering the matter, that we should not confuse our minds by attributing to the real present characters which belong only to the " specious present ".   It

is true that our knowledge of time is derived ultimately from the specious present. But this present *is* specious : it is the appearance of time to our minds, not time as it really elapses. Being always a short duration, it may show us at once events which did not occur at once—as when we hear simultaneously two successive ticks of a clock. We are able to do this, because the first tick is remembered (by means of primary memory) at the moment when the second tick is actually heard. It would evidently be a misreading of experience if we were to put off upon real time a simultaneity which is true only of our awareness of time. Because experienced time is a duration, it does not follow that there can be no times which are not durations, or that durations may not themselves be composed of instants. I will now re-state the argument.

The idea of duration is the idea of *passage*, from one present to another or through a series of presents. It therefore implies a plurality of presents. These presents are successive : that is, no two of them are real at once. The argument hinges on the fact that each present is real separately. By this I do not mean that one present does not somehow involve another as a consequence (how, we shall have later to consider), but that it is distinct in its reality from that other. Reality thus belongs to the presents entering into a duration, *severally*—not collectively to the whole duration which they form. There is no time at which a duration as a whole is real : there are only times when its constituent presents are real. But there cannot be many presents, which are real separately from each other or severally, unless there are single presents, each of which is real by itself (this is the well-known reasoning of Leibniz). Since, then, every duration involves a plurality of presents, the single present cannot be a duration (either finite or infinitesimal), but can only be an instant.

Duration, in other words, is in its essence relational. It is like change, which is not thinkable except as a passage from one state of being to another. To say that time consists exclusively of durations, or that the real consists of changes without states, is to assert relations without terms.

The argument from the nature of the present is especially convincing, because no two instants are real at once, and it is therefore easy to make the severalness of their reality felt. Evidently there must be a time which is real at once (if I may use "at once," not in the sense of simultaneity, but of *at one stroke*, or *by itself*). But I think a precisely similar

argument might be constructed in regard to the point. It would run as follows.

Every extension is a plurality of wheres, which (in so far as they are occupied—for I am not asserting empty or absolute space) are real severally and not collectively. Since every extension is a collection of wheres, and reality never belongs to the collection as such, the where which is ultimately real, the single place, must be a point. That is to say, if the real world is extended, it can only be because its elements reside in points.

How do we arrive at the knowledge of points and instants, if, as must be admitted, they are quite beyond the range of possible experience ?   We do so by following out in thought the logical implications of what is experienced.   One way in which we may do this has already been suggested.   Areas are seen lying within areas, in relations of ever-repeated inclusion, and, when once we have recognised that this extends far below the limits of human vision, no reason appears why the inclusion should not continue indefinitely; indeed, its indefinite continuance seems necessary as the ground of the continuity characterising the data of experience.   Thus the mind is launched upon a progress to which there is no limit but the point.   Similarly, intervals of time are contained within intervals, in a way that ultimately implies the instant.

But why, if the progress is endless, has it not strictly *no* limit ?   Because—in the case of time—there could then be no single present.   Time would consist exclusively of durations, that is, of parts every one of which contains a before and an after, without ever a part which is not thus composite, a part which is real at once.   It is as if we should say that the real consists entirely of twos, without any real ones.   To conceive time so is to think of two parts of it together, which cannot exist together; and this is to "spatialise" time—to view it as it appears to retrospective or prospective thought, in the form of a line the parts of which exist simultaneously, and not as it really elapses, successively.   It is to fail to recognise the infinite successiveness of time, the presence of succession in *every* duration.

The way of arriving at points and instants referred to above has been used by some contemporary philosophers as a means of avoiding the conclusion that points and instants are real.   To Prof. Whitehead and those who agree with him it seems doubtful whether real points and instants can be legitimately inferred from the data of experience ; and he offers his sets of abstractive series, all the members of which

are extensions and durations, as a logically satisfactory sub-
stitute for them.   There is at first sight something modest
and (quite literally) unassuming about this view, which im-
presses favourably; it seems to represent a judicious scepti-
cism, loth to assert entities for which experience furnishes
no unequivocal warrant.   Two questions must here be dis-
tinguished: (1) whether this method, as a way of passing
from experienced data to points and instants, is faultless
logically; (2) whether points and instants are real—that is,
actual constituents of space and time—or only ideal.   As to
the former question I hesitate to express an opinion, being
aware of my incompetence in all matters relating to mathe-
matics and mathematical logic; but I may allow myself to
ask a couple of questions which have occurred to me in re-
flecting on the abstractive method.

(1) One thing cannot enclose another unless the enclosed
thing, at least, has *ends*.   Can we be sure of the fact of en-
closure without knowing exactly where these ends are?   I
suppose we can: for we may perceive one of the things as
extending into a place where the other is not perceived—as
when we see a man in the street.   Yet the ends must be
somewhere; and, moreover, they must be really ends.   How
then do the advocates of this method conceive them?   Can
the end of a volume be anything but a surface, the end of a
surface anything but a line, and the end of a line anything
but a point?   If there is an alternative to this view, what is
it?   And if there is no alternative, are not surfaces, lines,
and points already implied in the assumption of volumes that
can enclose and be enclosed?

(2) In order that volumes may be so arranged as to con-
verge, not to *some* point, but to a *particular* point—and,
unless they do so, we shall not be able to infer that the re-
sulting points are arranged in the form of a continuous line
—they must be in exact relations to one another.   Is this
possible, or can such exact relations be conceived, unless—I
do not say, we know just where their ends are—but unless
we conceive them as having exactly placed ends, which, to
be exactly placed, must needs be surfaces?   Or can surfaces
enclose one another in such a way as to lead to particular
lines, unless we conceive them as having exactly placed ends,
which, to be such, must be lines?   Or can lines lead by con-
vergence, not to some point, but to a particular point, unless
they have exactly placed ends, which are points?   Can we,
in fine, arrive at points, lines, and surfaces by this method
unless we pre-suppose them?

Doubtless the advocates of the abstractive method have

answers to these questions which seem to them satisfactory, but I do not know what the answers are.

Even supposing this method, however, to be logically flawless, it would not follow that points and instants are not real. If it be true that time is real only as a present, and that the present does not last—in a word, that time is fleeting, not enduring—instants, at least, must be real ; and the analogous proposition may be true of space. In that case the abstractive method cannot be looked upon as providing a substitute for real points and instants, but at most as a way of arriving at them. The limits to which series of extensions and durations converge must be as real as the extensions and durations themselves. But how can an endless series have a real limit ? Is not this a contradiction ?

No, for the case may be like that of Achilles, who must successively traverse $\frac{1}{2}$, $\frac{3}{4}$, $\frac{7}{8}$ . . . of the distance in order to reach the tortoise, but is not prevented from doing so by the fact that this series is endless.

But this, it will be replied, is to assert the reality of infinitesimals. To which I can only answer, that if extension is in fact infinitely divisible, and if, further, whatever is divisible is already in itself divided (as we saw at the outset), infinitesimals must be as real as the finite extensions which are the starting-point of division.[1]

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[1] I am encouraged to take this view by the following passage of Charles Peirce (*Chance, Love and Logic*, p. 208), who was no mean logician: "Most of the mathematicians who during the last two generations have treated the differential calculus have been of the opinion that an infinitesimal quantity is an absurdity; although, with their habitual caution, they have often added ' or, at any rate, the conception of an infinitesimal is so difficult, that we practically cannot reason about it with confidence and security '. Accordingly, the doctrine of limits has been invented to evade the difficulty, or, as some say, to explain the signification of the word ' infinitesimal '. This doctrine, in one form or another, is taught in all the text-books, though in some of them only as an alternative view of the matter ; it answers well enough for the purposes of calculation, though even in that application it has its difficulties. The illumination of the subject by a strict notation for the logic of relatives had shown me clearly and evidently that the idea of an infinitesimal involves no contradiction, before I became acquainted with the writings of Dr. Georg Cantor . . . in which the same view is defended with extraordinary genius and penetrating logic." And again (p. 218): "Every number whose expression in decimals requires but a finite number of places of decimals is commensurable. Therefore, incommensurable numbers suppose an infinitieth place of decimals. The word infinitesimal is simply the Latin form of infinitieth ; that is, it is an ordinal formed from *infinitum*, as centesimal from *centum*. Thus continuity supposes infinitesimal quantities. There is nothing contradictory about the idea of such quantities."

I notice also with satisfaction that Prof. Montague (in *The Ways of Knowing*, p. 180) does not hesitate to speak of " infinitieths " of a mile, " infinitieths " of an hour.

Another argument for the reality of infinitesimals is the fact that the hypotenuse of a right-angled triangle, whose sides are unity, is measured by $\sqrt{2}$—and yet is real; and that the circumference of a circle, though as real as the diameter, is measured by π.

Finally, consider what follows if we deny that there is any real present except a duration. No reason then exists—since every one of the infinitely numerous durations, which are alone recognised, is finite in length—for preferring one duration to another as the present: and we thus lose the power of drawing a clear line of demarcation between the present and the past. It then follows that *all* duration (all, at least, that has actually begun) is equally real; and that the past therefore, still exists just as truly as the present. In order, none the less, to have some distinction between the past and the present, it will be suggested that the past, although still existent, is no longer active. I find it difficult to take this suggestion seriously.[1] That the aeons of past time—say, before the first beginning of the solar system—still exist in any other way except as a possible object of thought, is an idea so extravagant, that no philosopher could ever have propounded it if he had not been arguing logically (as is so frequently the habit of philosophers) from a false premiss.

It becomes of interest to trace this doctrine of the unreality of points and instants to its source. It has its source, if I am not mistaken, in what may be called the empiricist theory of perception. This is the theory that the real is strictly identical with the (unapperceived) sensible datum of perception: that error enters only by misinterpretation, never into the substance of the datum itself. If so, then nothing can be admitted to be real that is not capable of appearing in the sensible datum: wherewith points and instants are excluded, and set down as mere abstractions, manufactured out of what *can* be sensible. This is the prevailing fallacy of contemporary thought, and it is not wonderful that it should have infected even mathematicians and physicists. It seems to me possible that Weierstrass's disproof of infinitesimals was arrived at under the influence of similar empiricist or transcendentalist notions, which were in the air in Germany.

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[1] Imagine a lady, whose charms have suffered *du temps l'irréparable outrage*, consoled by a philosopher with the assurance that her beauty is as real as ever it was, only no longer active!

IV.

The Physical Basis of Junctions.

I must now attempt—with the diffidence proper to a non-physicist and non-mathematician—to indicate a form in which motion, with its characters of velocity and acceleration, may be contained in the present instant. Motion evidently cannot be contained there as such. But it is not inconceivable that something may be there contained which unambiguously prescribes the change of place, on the part of matter or of energy, which must occur from that instant to the next.

But is it sufficient that what is real at present should *prescribe* what shall be real a moment hence? No, it is not sufficient, as I hope soon to make clear.

All physical change is motion, and physics is exclusively occupied in describing motions, without concerning itself with (or being, I think, able to answer) the question what it is that moves. This real something is known to physics only as the source of action—that is, as producing or tending to produce changes of place of its own parts—and, as such, is called *energy*. If space is composed of points and the real resides in them, the sources of action cannot be less numerous than the points. And if the real exists only in present instants, these infinitely numerous energies must, at the instant, be only potential.

Further, matter is now recognised to be only a form—perhaps a temporary form—in which the energies are arranged: contemporary physics has substituted the conception of energy, as the ultimate physical reality, for that of matter. An essential difference between the two conceptions is that, whereas pieces of matter were impenetrable to each other, portions of energy are not so. The amount of energy or *tension* accumulated in a point may vary from place to place.

If, then, I am not misconceiving the fundamental notions of contemporary physics, the form in which motion, with velocity and acceleration, may be contained in the present instant is that of a varying distribution of the quantity of energy in points. The physical world is a sea of energy, with waves rising in different places to considerable heights, and with extensive areas in which the energy is at a relatively even level; these differences of level or height being in a fourth dimension, additional to the three dimensions of space, in the instant. The ultimate explanation of physical occurrences would be furnished by some form of wave theory.

If this is correct, those who speak of the constituents of physical reality as "events," and those who say that time is essentially "duration," are right as far as they go, but they do not carry the analysis down to the ultimate constituents.

The "passage," the *élan*, however, which they recognise, is a further fact, without which our own analysis would be fatally incomplete. I suggested above that it is not sufficient for present reality merely to *prescribe* what the next present reality shall be : what is further requisite? That it should carry its prescription into effect.

If the real exists only in one instant at a time, and the entire sum of it is present in that instant, either the new instant, when it comes, is—not a distinct existent, for that it unquestionably is—but an existent unconnected with the old; or else the old instant, the real that was in that instant, has had a hand in producing the new instant of the real.

I am anxious to state my meaning here in the barest possible way, so that metaphors may not be taken for a description of literal fact, and so that I may not be accused of asserting more than the facts warrant. *It is of the nature of the real to continue in being. The real is of such a nature as to prolong its own being from instant to instant.* The important point is that this continuance is involved in the nature of the real as it is at each instant—that the new real does not, so to speak, arrive from some other quarter, or merely supervene. One instant of the real does not *logically imply* the next : but it *naturally involves* the next. In other words, the new instant of the real is present in the old instant as a *potentiality,* and the coming of the new instant is the actualising of this potentiality.

Now that I have stated the bare literal fact, I may mention a number of pardonable metaphors : the old instant of the real "leads to," "brings forth," "gives birth to" the new instant of the real, for such is its nature.

Mere continuance, with or without change, is the most abstract statement of what occurs. When we take special note of change, and of the agency of the last instant of the real in producing it, the relation in question assumes the more concrete form of *cause and effect.* The real now appears as *power* or *force.*

This, of course, brings us into conflict with Hume's denial of the reality of causation, or production, or generation. Hume was right in denying that the cause *logically implies* the effect. No inspection of the cause can discover the effect in it. He was wrong, I think, in denying that the cause *naturally involves* the effect, and can be recognised in experi-

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ence as doing so.   Only on this assumption have we a basis
for induction—for which adherents of the Humian theory
look in vain among their principles.   And only on this
assumption can we account naturally. for the transcendent
reference of states of the self, in expectation and other forms
of awareness (as Prof. Montague has recognised in his thesis
that "consciousness," or, as I should say, sentience, is identi-
cal with potential energy).

Hume's denial of the reality of causation seems to me no
more valid than his denial of substance—that is, of a real
thing appearing to us in perception, and not wholly identifi-
able with the mere appearance as such ; and the two denials
have their root in the same empiricist fallacy, which sup-
poses that the real, in perception, is given to mere sense, and
not to a sensibly mediated intent.   Hume could not know,
in the then state of psychology, that we cannot perceive
unless we react, and so indicate the object with which our
cognition has to do.   But to react is to exert power, and to
encounter a power in the object which is the counterpart of
our own ; the notion of power being one which we derive
primarily from our introspective observation of ourselves,
and attribute secondarily to the thing which resists us.   This
doctrine is of course as old as the hills, but current philosophy
seems to have lost sight of its solid basis.   Leibniz was wiser
when he said : *La force, dites-vous, nous ne la connaissons
que par ses effets et non telle qu'elle est en soi.   Je réponds
qu'il en serait ainsi si nous n'avions pas une âme* [a self] *et
si nous ne la connaissions pas ; mais notre âme connue de
nous a des perceptions et des appétits* [sensations and impulses],
et sa nature y est contenue.   One need not believe in the
simplicity and indivisibility of the soul in order to see the
truth of these memorable words.[1]

V.

Some Philosophical Consequences.

Among these, the first that claims notice is that the ana-
lysis into points and instants explains satisfactorily why
mathematics applies to Nature.   It applies because Nature
is at bottom, in one aspect, number.   The philosophy of
Pythagoras comes again into its rights.

The "strife" and the "flowing" of Heraclitus evidently
also receive due recognition.   But how is it with the
"unity" of Parmenides?   To answer this question, we must

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[1] *Lettre à M. de Montmort.*   Kant, as is well known, showed the fallacy
of arguing from the unity of consciousness to the unity of the soul.

consider the physical relation which is the basis of spatial nextness—and also the absence of this relation between parts of the real which are not next to each other.

In the passage from instant to instant, the forces in contiguous points strive with each other, and either remain evenly balanced, or the one gives and the other receives energy, according to their quantitative relation. To do so, they must strive in the same instant: but if A is simultaneous with B, and B with C, A and C must also be simultaneous, so that simultaneity extends through all space. Indeed, there would be no sense in speaking of it as one space if its parts were not simultaneous.[1] On the other hand, non-contiguous forces are disjoined, as we saw, and do not co-operate, except as they effect changes in the intervening forces that connect them.

By this process of joint striving, the energy resident ultimately in points is re-distributed from instant to instant, and its parts re-woven into a new fabric.   In changing their places the ultimate units of energy do not lose their identity —there would be no sense in speaking of them as moving if they did not remain the same—and, though the identity through time of different bits of energy may not be traceable empirically, this identity appears quantitatively in the principle of the conservation of energy.

What then is the bearing of these facts upon the problem of the one and the many ? It is the custom to discuss this problem in the form of the question of " external " and " internal " relations. Let us consider this question first in the case of time, and then in that of space.

If reality at one instant may truly be said to give rise to reality at the next instant—and there is no alternative to this except the view that the two are wholly unconnected— then, in the establishment of a temporal junction, what was internal has given rise to something external. For at the first instant the real of the second existed as a potentiality, and at the second instant this potentiality has actualised itself. The two instants of the real are thus neither *merely* external to each other, nor are they internal to a third thing ; but the one generates the other. To imagine a third thing is as absurd as to say that the family is more real than its members. To think of this third thing as timeless is to place

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[1] This seems to contradict a familiar thesis of the theory of relativity but I incline strongly to the view of Sir J. Larmor, Bergson, and Whitehead that relativity may be re-interpreted in terms of common-sense notions of time and space.

the real outside of time, in contradiction with the most obvious fact of experience.

Turning now to space, we saw that the forces in contiguous points strive together, or co-operate. This means that they act as one in producing the redistribution of energy which is their effect. They act as one, because the effect cannot be ascribed to either alone, but only to them both. This effect, if the quantity of energy in the two points is equal, will be continuance of their relation without change; if the quantity is unequal, it will be passage of energy from one point into the other. Thus, in action, powers which are internal to two (or more) points produce an effect beyond each of those points: so that, here again, what was internal has given rise to a new external relation. New spatial junctions between the units of energy are bred at each fresh instant by the action of those units at the preceding instant. Space, like time, appears to rest on that operation of energies which is the essence of becoming.

But again, it would be fallacious to imagine that, in order that spatial relations may be real, the related terms must be members of a third thing which is more real than they. The only third thing is the effect, which is real in the same sense as its two (or more) distinct causes. And the unreality of the supposed unity appears further, when we consider that, if A and B were members of a third thing, and B and C also such members, A and C would be members of the same thing, which would therefore—like simultaneity—include the whole universe. But this would be in contradiction with the ob-vious fact of experience that forces in different points are *not* one, but distinct; and, still more, with that disconnexion of the non-adjacent, which is the other side of continuity.

The doctrine sketched thus takes middle ground between Monism or absolute unity and a Pluralism which ignores and is unable to explain the fact of connexion. The term "pluralism" being ambiguous, it is desirable to have a special name for this view, and the proper word is that used by Charles Peirce, *synechism*. Synechism is the view that the real is really in time and space; that reality belongs to the parts, not to the whole; and that the unity of the world is not existential, but a unity of law and order. This con-ception of the nature of terms and relations seems to me not only possible and free from contradiction, but the only one in accord with the observed facts.

The universe is indeed a whole, on this theory; but the whole has unity only for a mind that conceives it; apart from human thought, its wholeness consists solely in the

junctions that bind its parts together. Similarly, relations between non-adjacent parts of space and of time have no existence in Nature, but are sums made by human minds thinking of Nature, and, if the sums have been correctly made, possessed of truth. Leibniz, then, was not altogether wrong in maintaining that time and space are ideal: they are ideal as unified wholes, and real only in the junctions that connect their parts.

I believe that he was also right in holding that reality in general is of the same nature as the self.[1] It is hard to find a suitable name for this nature; I have used *sentience*, but if that is thought too suggestive of animal awareness, I should be satisfied with Bergson's term *life*. No term can, of course, be entirely satisfactory for an entity which, being simple and elementary, is so completely removed from our habitual objects of thought. It is enough if we recognise that what physicists call *energy*, and admit to be unknown to them, as physicists, in its intrinsic nature, is yet, in one sense, of all things the best known to us, being the nature of ourselves.

[1] Mr. Russell, by his recent conclusion that "percepts" are in the brain, has at last come round to this view. But is it really percepts— that is, perceptual data—that are in the brain? Is it not rather the sensations by means of which we perceive things? It seems to me that a most important distinction is here overlooked.

II.—McTAGGART'S DETERMINING CORRE-
SPONDENCE OF SUBSTANCE:
A REFUTATION.

By JOHN WISDOM.

McTAGGART says[1]—". . . the universe has a set of parts
which answer to our definition of primary parts ".[2] This is
the theory of the determining correspondence of substance.

Let us do three things: (1) find out what McTaggart
meant by the above expression; (2) see whether he has a
proper argument for what it expresses; (3) see whether
there is any proper argument for what it expresses.

We shall find, I think, that he meant what I am going to
express by 'the universe is a Primary Whole or a set of
Primary Wholes'. The conception of a Primary Whole in-
volves in its analysis the conception of a sub-set of one Set of
Parts of a substance A, being what we will call 'representa-
tive' of another Set of Parts of A. Draw a square. Divide
it by a line—

The two resultant parts of the square are a Set of Parts of
the square: for they together make it up and have no
common part—as Dr. Broad neatly says "they just fit
together to make it up ".[3] Call this set of parts of the
square a. Draw two lines across the first line. Then the
square is divided into six bits. Call this set of parts of the
square β. The set β has many sub-sets, among which are

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[1] *The Nature of Existence*, vol. i., p. 218.

[2] These parts may be divided into any number of primary wholes both
in McTaggart's sense of 'primary whole' (*N. of E.*, p. 215) and in the
different sense defined below. For see *N. of E.*, p. 218.

[3] MIND, N.S., xxx., p. 326.

the three following: β'_1 the two top bits, β'_2 the two middle bits, β'_3 the two bottom bits. Each of these sub-sets is 'representative' of a. For of any one of them it is true both (1) that each of its members is a part of a *different* member of a, and (2) that each member of a has a part which is a member of the sub-set. Here is another example to help one's memory. Suppose the books of a library are in two book-cases, and that each case has two shelves. Take the group of books on the top shelf of the first case and the group of books on the top shelf of the second. The two groups of books you have selected form a sub-set of that set of parts of the library which we get by splitting it up according to shelves. And this sub-set is 'representative' of the set of parts we get by splitting up the library, according to cases. *Any* pair of shelves is 'representative' of the two cases if it has one shelf from each case. A sub-set, σ, of a set of parts, S_2, is 'representative' of a set of parts, S_1, if and only if both (i) each member of σ is part of a *different* member of S_1, and (ii) each member of S_1 has a part which is a member of σ.

Let us now define roughly the expression ' Primary Whole ' —the accurate definition is on p. 418. A is a substance. Let A have a set of parts B, C, and below BC an endless series of sets of parts one below the other. Suppose that in any lower set of parts there are just so many sub-sets representative of B and C as there are members of the set above it.[1] Let there be some relation R such that for each member of a higher set of parts there is just one sub-set representative of B, C, in the set of parts below it, to each member of which sub-set it has $\overset{\circ}{\mathrm{R}}$ and to no other parts of B, C.[2] Let B and C each have a sufficient description.[3] Then A is a Primary Whole.

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[1] Dr. Broad in his review of the *N. of E.* in MIND, xxx., p. 317, says in his definition of determining correspondence that his relation R with its co-domain confined to a (a corresponds to B, C, see p. 419) is one-one. But M has $\overset{\circ}{\mathrm{R}}$ both to M ! M and to M ! N (see diagram below).

[2] Say that S_2 is below S_1 if, and only if, any member of S_2 is part of one member of S_1 and no part of a member of S_1 is neither a member of S_2 nor a part of a member of S_2. In other words—if *every* member of a set of parts be split up in *some* (the same or different) way the resultant group is a second set of parts below the first. S_2 is *immediately* below S_1 if there is no third set of parts below S_1 and above S_2. McTaggart uses ' below ' differently, see *N. of E.*, p. 191.

[3] A sufficient description is any predicate which happens to belong to only one thing and has no constituent which is a substance. Thus " has R to a red thing " would at present be a sufficient description if at present there were only one red thing. But " has R to this " where this is a name for a substance never could be. See *N. of E.*, p. 104.

I cannot think of any example of a primary whole. The best I can do is this. Consider the diagram. Let each row of triangles and squares be a set of parts of a substance S. (Of course if they *were* they could not be joined by lines so that there is an absurdity about the above example. Nevertheless it may be useful.) Let any small triangle be a part of M, and any small square a part of N. M and N correspond to B, C, above. Notice that all the squares and triangles are joined *directly* to some but not all the other
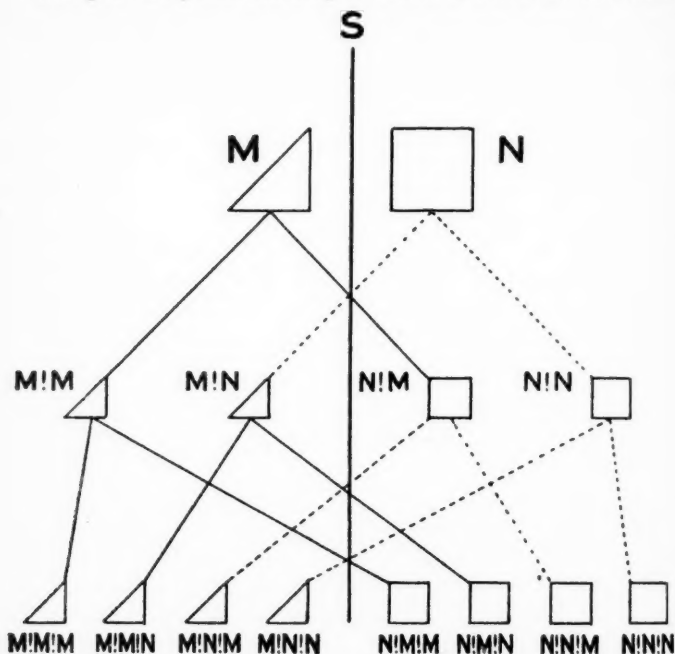
squares and triangles—"joined directly" corresponds to R above. Suppose that M has the sufficient description of being the largest triangle in the world and N of being the largest square.

Now take any one of the little squares and triangles, say M ! M ! N : it will have a sufficient description—for M ! M ! N has the quality "is a part of the largest triangle and is joined directly to what is both part of the largest triangle and is joined directly to the largest square"; and nothing else has this quality.

If McTaggart would call B and C a set of Primary Parts and R a relation of Determining Correspondence, we now know what it is he is saying about the Universe—it is equipollent to the proposition, " the universe is a primary whole or a set of primary wholes". And McTaggart would.   He says (*N. of E.*, p. 215), "Primary Parts may be defined as follows: When a set of parts of a substance is such that none of its members are determined by determining correspondence, and that, from sufficient descriptions of all its members, there follow, by determining correspondence, sufficient descriptions of an infinite series of sequent sets,[1] then the members of that set are called primary parts." I can see from what McTaggart says, especially in sections 197, 198, 200, and 236, what he means by 'follow by determining correspondence '—I can see what sort of sufficient descriptions he provides and how he does it.   Using the phrase in just his sense we could state our definition of ' primary parts' just as he does.   For from sufficient descriptions of B and C, there follow sufficient descriptions of an infinite series of sequent sets of parts.   In the proof below that "Every primary quality is an Indicator," you will see just how they follow and you will see that it is by *determining correspondence* in McTaggart's sense.

Before giving the proof let us define ' Some part of the nature of the substance A indicates (*i.e.*, supplies without including) sufficient descriptions for an infinite series of sets of parts of A falling one below the other.'   The ' nature ' of a substance is all its qualities (including relational qualities). 'ψ supplies ϕ ' means ' if ever there is a fact " ψ-applies-to-something-or-other" then that fact entails " ϕ-applies-to-something-or-other ".'   ' Part of A's nature supplies a sufficient description of one of A's parts ' means ' There is a quality ψ true of A and a sufficient description ϕ which in fact applies to some part of A, such that, A-has-ψ entails ϕ-applies-to-something (anything).'   ' Entails ' is used in Dr. Moore's sense.   The premisses of a valid syllogism together entail its conclusion—they formally necessitate it.

It is clear that A-has-ψ might *include* the fact about the sufficient description that it applies to something—thus A-has-ψ might be the fact with regard to A that it has a part which has ϕ: in this case the nature of A supplies ϕ ' by inclusion '.   If F is a fact about A and entails with regard to a quality q that q applies to something (anything) and q happens to be a sufficient description of one of the parts of

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[1] ' ϕ is a sufficient description of a set of parts σ ' means ' ϕ is a class of sufficient descriptions—one for each member of σ.'

A, then part of the nature of A, *viz.*, the predicate in F,[1] *indicates* a sufficient description, *viz.*, q, of one of A's parts.

' Some part of the nature of A indicates sufficient descriptions of an infinite series of sets of parts of A ' means then 'There is some quality ψ true of A and a set of qualities $\phi_1 \ldots \phi_n$ which *in fact* are sufficient descriptions which sufficiently describe a series of sets of parts of A, such that ψ indicates each of $\phi_1 \ldots \phi_n$, *i.e.*, entails-without-including with regard to each one of $\phi_1 \ldots \phi_n$ that it applies to something—*any* thing whatever.' Let us say that a quality which indicates sufficient descriptions of an infinite series of sets of parts of anything to which it belongs is an Indicator. We ought to notice that my knowledge that A has Q, the indicator which A has, must enable me to say more than merely there is *some* set of sufficient descriptions which apply to the parts of A. For it must enable me to say "*These* sufficient descriptions apply to something (anything)"—and mention and put my finger on, *i.e.*, be acquainted with in Russell's sense, each of the sufficient descriptions in the infinite set— at least if I were an angel. On the other hand my knowledge of F, that A has Q, need *not* enable me to put my finger on any part in the series of parts of A and say "*This* has ϕ," where ϕ is a sufficient description : it need only enable me to say "ϕ applies to *something*."

One more point as to meaning—namely, how I propose to use the term Primary Quality.[2] To assert of a thing that it has a Primary Quality is to assert of it that it is a primary whole. To assert of a thing that it is a primary whole is, we have seen, to assert of it that has a quality of a certain *form*, namely of the form "has a set of parts which have *some* set of sufficient descriptions, $\psi_1 \ldots \psi_n$, and such that *some* relation R, etc." (see above, p. 415). It is only asserted that the quality is of that *form*—$\psi_1 \ldots \psi_n$ and R are not specified until we say *what* Primary Quality A has. So to say of a quality that it is a Primary Quality is to say that it is a quality of the above *form*. Some qualities are *dependent* on primary qualities, *e.g.*, that of " being a part of a thing which has Q " where Q is a primary quality or " composed of a thing which has Q and a thing which has P," where Q and P are primary qualities.

This is the proof that every primary quality is an indicator. It makes clear how from A's primary quality there follow sufficient descriptions of an infinite hierarchy of A's parts.

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[1] ' ϕ is *the predicate in* the fact F ' means ' F is a fact about something that it is ϕ,' *e.g.*, red is *the predicate in* ' This frock is red '.

[2] McTaggart uses " Primary Quality " in an entirely different sense.

We must remember that ' ϕ is an indicator ' means ' if ϕ applies to anything, A, then it indicates sufficient descriptions of an infinite hierarchy of parts of A '. Suppose that Q is a primary quality. Then "A has Q" is a proposition of the following form—" There is a set of sets of parts of A, Σ, and an item a, in Σ, and a relation R, such that (1) taking any item in Σ, σ_1, then there is an item in Σ, σ_2, such that (a) each member of σ_1 has R to each member of only one (a different) subset within σ_2, which subset is representative of a, and to no other parts of members of a, and (b) each member of σ_2 has R to some member of σ_1 ; (2) each member of a has one or other of ψ_1 ψ_2 . . . ψ_n (where ψ_1 . . . ψ_n are sufficient descriptions)."

Now if A has such a set of sets of parts as Σ then there is an infinite hierarchy of parts of A, $viz.$, Σ, such that in the case of any member x within that hierarchy there is a quality q, which applies to x and is such that (i) " Q applies to something " entails without including, " q applies to something," and (ii) it is a sufficient description.   For let x be any member of the set of parts, β, within Σ, next below a.   Then x has the quality of being (a) R to a thing which has ψ_{n-m}, and (b) a part of a thing which has ψ_{n-l} (ψ_{n-m} and ψ_{n-l} may be the same).   Call this compound quality q.   It is clear that (i) " Q applies to something " entails without including " something has q ".   And we will prove that (ii) q is a sufficient description.   It contains no part which is a substance ; that is the first point.   It applies to something, $viz.$, x ; that is the second point.   It does not apply to more than one thing ; that is the last point.   The last point is true for : Suppose y any thing other than x, then q does not apply to it.   For if (1) y is not a part of a member of a it is not a part of a thing which has ψ_{n-l} : since ψ_{n-l} is a sufficient description and therefore applies to nothing which is not the member of a to which it does apply.

Further x is a member of one sub-set within β which sub-set is representative of a, and $\breve{R}$ is a relation which a member of a higher set of parts σ_1 in Σ has $only$ to members of one representative sub-set within the next lower set of parts, σ_2. Hence, if (2) y is a part of a member of a and is not a member of the same representative sub-set within β as x is, then y has not got R to the member of a to which x has R.   And therefore y has not got the quality of " being R to a thing which has ψ_{n-m} ": for ψ_{n-m} is a sufficient description of the member of a to which x has R.

And if (3) y is a member of the same representative sub-set as x is, it is not a part of the same member of a as x is :

by definition of " representative ".   And therefore y has not got
the quality of " being a part of a thing which has ψ_{n-1} " :   for
ψ_{n-1} is a sufficient description of the member of a of which
x is a part.

Similarly any member of γ has a sufficient description " is
a part of a thing which has ψ_{n-r}, and is R to the thing
which is both (1) a part of a thing which has ψ_{n-h}, and (2)
is R to the thing which has ψ_{n-d} " (where all the ψ's may be
the same).

Hence we have proved that every primary quality is an in-
dicator.   I think you will agree now that McTaggart would
call the members of a, $i.e.$, B, C, of p. 415, primary parts.

Now we will consider the arguments for " The universe
has a set of Primary Parts ".

The last stage of McTaggart's argument may be put as
follows :—

(1) Only primary qualities or qualities dependent upon
them are indicators.   ($N.$ of $E.$, p. 218.)

(2) Every substance must have an indicator.   ($N.$ of $E.$,
p. 204.)

Therefore the universe [1] will always be a Primary Whole
or a set of them.

Can we object that McTaggart's first premiss is false
because there is another way of indicating the required
hierarchy of sufficient descriptions ?   I think we can for two
reasons corresponding to two other ways.   And perhaps
three.

I. *The Serial Method.*   This method is collected from Dr.
Broad's review of the *Nature of Existence* in MIND.   Roughly
the method is as follows : Give A any sufficient description
ϕ.   Arrange a series Σ of sets of parts of A to fall immediately
one below the other and let each set of parts in the series have
some quality ψ which belongs to no sets of parts of A not in
the series.   Further take each set of parts in the series and
arrange its members in another series.   Let us express this
by saying that A has a Serial Quality.   Any serial quality
is an indicator.   For any member x of any set of parts in Σ
will have a quality such that (i) its application is entailed by
the fact that something has the serial quality Q which A has ;
and (ii) it is a sufficient description, namely a sufficient
description of the form " the mth term of a series generated
by the relation R within a set of parts which is the nth term
in a series of sets of parts such that each set of parts in that
series is (a) a set of parts of the substance which has ϕ, and

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[1] The universe is the substance which contains all other substances.

(b) itself has ψ ". The following is a case of the Serial Method and is practically a quotation from Dr. Broad. Take a straight line, AB, with any sufficient description ϕ. Bisect it; it consists of the set of parts AX, XB. Bisect these in turn; they consist respectively of the sets AY, YX, and XZ, ZB. The four are a new set of parts of AB. This process of bisection can be continued *ad infinitum.* Moreover any part in this infinite series has a simple sufficient description. It can be described by a description of the form "the mth member of the nth successive bisection of the substance with the property ϕ ".

ψ, the quality which distinguishes the series of sets of parts, is, in Dr. Broad's example, "such that any two of its members are of equal size" : for each is obtained by bisection.

Dr. Broad does not make it clear that when we say "the mth member" we must *mention* a relation and say "the mth in a series generated by R," *e.g.*, from the left. I think Dr. Broad is wrong when he says that he is probably wrong when he says that this is an alternative to the Primary Method.

II. *The Method of Echoes.* Suppose that A has a set of parts, a, sufficiently described by $\phi_1 \ldots \phi_n$. Below a there falls an infinite series of sets of parts, Σ, such that each term is *immediately* below[1] the precedent term. A quality ψ applies to each set of parts within the series and to no other sets of parts of A. There are two qualities χ_1 and χ_2 which *echo* down the series : this means that if you take any set of parts σ_1, in the series and the set of parts σ_2 *immediately* below it and take x any member of σ_1, and y and z the two members of σ_2 which are parts of x, then y has χ_1, and not χ_2, and z has χ_2 and not χ_1. Let us express all this by saying that A has an Echoing Quality. (An echoing quality is not an echo as χ_1 and χ_2 are.) Any echoing quality is an indicator. For any member x of any set of parts in Σ will have a quality such that (i) its application is entailed by the fact that something has Q, the echoing quality which A has; and (ii) it is a sufficient description.

For let x be any member of the set of parts, β, next below a. Then x has the compound quality q of being (a) a part of the thing which has ϕ_{n-m}, (b) having χ_1 (or, if not, χ_2), and (c) being a member of the set of parts which has ψ, and is next to the set of parts (*viz.*, a), described by $\phi_1 \ldots \phi_n$. That q applies to something is entailed by "A has Q".

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[1] σ_2 falls immediately below σ_1, if there is no third set of parts which is below σ_1, and above σ_2. It follows that σ_2 has just twice as many members as σ_1 if every substance has parts.

Further if Q is an echoing quality q applies to only one thing. For any member of β other than x is either also a part of the member of a of which x is a part or not. If it is it has χ_2 and *not* χ_1. If it is not it is not part of what has ϕ_{n-m}. Similarly let y be a member of γ and a part of x. Then y has the compound quality, q', (a) being a part of the thing which has q, and (b) having χ_1 (or, if not, χ_2), and (c) roughly, being a member of the second set of parts from a which has ψ.

It might be said that if we put "resembling in χ_1, the thing which has q" instead of (b), we should have a primary whole with the members of β as primary parts. But we cannot describe z, the member of δ which is a part of y and has χ_1, as the thing which (a) is a part of the thing which has q, (b) resembles in χ_1, the thing which has q, and (c) is a member of the third set of parts, etc. For another member of δ will have "is a part of the thing which has q and resembles it in χ_1"; namely the χ_1 part of the member of γ which has χ_2 and is a part of the thing which has q. If we alter (a) in the case of z to "is a part of the thing which has q'" we get a sufficient description. But not a primary whole. For in a primary whole the sufficient description of each part *right down the series* would be of the form "has R to the thing which has p and is a part of the thing which has ϕ_{n-m}" where ϕ_{n-m} is a sufficient description of *a primary part*. However a thing with an echoing quality is quite like a primary whole.

III. *The Method of Pointers.* Suppose that each part within an infinite hierarchy of parts of A has a quality which fixes a sufficient description. Say that a quality q fixes a quality q' if a fact about anything, x, that it has q entails without including that the *same* thing, x, has q'.

The method may be more strictly stated in other words. Let A have a quality Q, of the form—"has as a part this which has ψ_1, and this which has ψ_2" and so on to "this which has ψ_n". Where $\psi \ldots \psi_n$ each fix a sufficient description and together describe a hierarchy of parts of A. Let us express all this by saying that A has a Pointing Quality. (A pointing quality is not a Pointer as $\psi_1 \ldots \psi_n$ are.)

The fact that A has Q, the pointing quality which it has, supplies without including sufficient descriptions of an infinite hierarchy of parts of A. And therefore Q indicates these descriptions.

I will not do more than state this method of providing the sufficient descriptions. Partly because if McTaggart's two

proofs that if the nature of A supplies sufficient descriptions of its parts then A has an indicator, are sound, the method lands us in difficulties.   And partly because any discussion of it is very tedious.

McTaggart's first premiss, then, is false for at least two reasons.   (We may remember that an echoing quality is like a primary quality.)

Can we say that McTaggart's second premiss that every substance must have an indicator, *i.e.*, a part of its nature which supplies without including sufficient descriptions of an infinite series of its parts, is unjustified?   I think we can.

The first of McTaggart's arguments for it runs as follows: If A is a substance then it has an infinite series of parts of parts and each part has a sufficient description.   For every substance must have parts and any part of a substance must be a substance: hence the first point.[1]   And every substance must have a sufficient description: hence the second point.

McTaggart's proof that every substance has a sufficient description will be found in Chapter X. and on pages 106-108 of the *N. of E.* and it is fallacious.   I will start my statement of it thus—"No two substances agree in all their qualities (relational as well as others)."   This proposition—the Dissimilarity of the Diverse—he takes to be self-evident.   It is not self-evident to me.   But it follows from the fact that every substance has parts: for then in the case of any two substances one will have a part which the other has not. From the Dissimilarity of the Diverse McTaggart infers that every substance has an *exclusive description, i.e.*, some quality which applies only to it.   It does not follow that every substance has some quality not constructed from its other qualities which applies to it only.   For suppose A has ϕ and χ and no other qualities except constructed qualities, *e.g.*, the quality of having both ϕ and χ.   Let B similarly have ϕ and ψ and C have ψ and χ.   Then in the case of any two of these substances one has a quality which the other has not and yet each unconstructed quality of each substance belongs also to another substance.   It *does*, however, follow from the fact that no two substances agree in all their qualities that each substance has *some* quality which belongs only to it.   Take a substance S with unconstructed qualities ϕ, ψ.   No other substance S′ has the quality "has the same unconstructed qualities as S namely ϕ and ψ".   For then the qualities of S′ constructed from ϕ and ψ would be the same as the constructed qualities of S.   And thus S and S′ would agree in

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[1] I think that each of these is self-evident.

all their qualities. If McTaggart really requires only what he says, $viz.$, "Every substance has some quality or other which applies only to it" he has proved what he requires. I am not quite satisfied that he does not need "Every substance has an unconstructed quality which applies only to it". However let us suppose that the argument is all right so far.

McTaggart's next step is to prove that since every substance has an exclusive description every substance has a sufficient description. I think McTaggart is confusing two arguments on pages 106-108—both fallacious. I shall restate them; but you should read McTaggart's own statement.

If the exclusive description which a substance needs is not a relational quality it is clearly a sufficient description. Therefore if A has no sufficient description its exclusive descriptions are all relational qualities. Clearly there are at least these two sorts of relational quality—(1) has R to what has ϕ, (2) has R to something (where R in each case may be of any finite degree of complexity, $e.g.$, "has R_1 to something which has R_2 to something which has ϕ," or "has R_1 to something which has R_2 to something which has R_3 to something"). Now both these sorts of $relational$ quality are sufficient descriptions also. McTaggart continues, page 108, "But supposing that neither of these things ever happens, and that the series of substances involved in the exclusive description of A never ceases?" [$i.e.$, A's exclusive description is of the form "has R_1 to something which has R_2 to something . . ." without end]. "Shall we not then have a case in which a substance has no sufficient description? This case however cannot occur because such an infinite series would be vicious."

But suppose A has an exclusive description—"has R to this," where "this" is a name for a substance—what then? "Neither of these things ever happens" is not equivalent to "the series of substances involved in the description of A never ceases" (see above): McTaggart has neglected the alternative we have suggested.

It would be almost incredible that McTaggart should have made such a mistake but for the signs of his having confused the above argument with another which runs as follows: If A has no exclusive description which is sufficient then it has an exclusive description "has R to this (B)".[1] A could not exist if it had no exclusive description (from the Dis-

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[1] McTaggart confuses two uses of symbols and thus "has R to B," where 'B' like 'this' is a name for a substance, with "has R to B" where 'B' stands for 'something or other other than the other something-or-others referred to in the argument'.

similarity of the Diverse): A's existence then depends upon the fact that it is R to B and thus on the existence of B. But B is a substance. It cannot have an exclusive description, ϕ, which is sufficient. For then A would have a-sufficient description "has R to what has ϕ"; since it is the only thing which has R to B. As in the case of A, then, B must have an exclusive description "has R to this (C)". And as in the case of A the existence of B depends on the existence of C. And so on without end. But such a series of substances each dependent on the one below it is impossible. Therefore A has some exclusive description which is sufficient.

But does ' B must have an exclusive description "has R to this (C)"' mean to add 'where C is other than A'? If so, the premiss is false. Or does it not? If so, the infinity of the series fails to follow. In other words the following possibility refutes McTaggart's second argument (and also the first)—Suppose A has R to B alone and B has S (a relation the same as or different from R) to A alone. Then (1) each has an exclusive description, which is not sufficient, (2) no infinite series follows.

As to whether the two infinite series mentioned respectively in the first and second argument *are* vicious—I doubt that the first is and believe that the second isn't.

But can the whole of McTaggart's argument be made with exclusive descriptions instead of sufficient descriptions and so avoid the errors which we have found in this first part of his proof that every substance has an indicator? It cannot. For then to supply the exclusive descriptions which A requires we need suppose *only* that there are two relations R_1 and R_2 such that any member of a higher set of parts of A has R_1 to one member of the set of parts below it and to nothing else and R_2 to another member of the set of parts below it and to nothing else. We need *not* suppose that A has a Primary Quality.

Let us go on with the statement of McTaggart's argument. A has an infinite series of parts, each having a sufficient description, and each having also a "place-quality". The existence of A therefore entails an infinite number of concurrences—between the sufficient descriptions and the "place-qualities". And these concurrences will be "ultimate" unless A has an indicator.[1]

What does McTaggart mean by 'an infinite number of ultimate concurrences'?

Any part in the sufficiently described hierarchy of parts of

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[1] *N. of E.*, p. 199.

A has besides its sufficient description a "place-quality"—
that is "it is described as being a member of a particular set
of A's parts and as being a part of some particular member
of the precedent set". Let us say that P is the *predicate* in
any fact which is a fact with regard to something that it is
P, *e.g.*, "red" is the predicate in "this is red". Correspond-
ing to the hierarchy of parts of A we shall have a hierarchy,
X, of facts about those parts the predicates in which facts are
place-qualities; and another hierarchy, Y, of facts the predi-
cates in which are sufficient descriptions. Thus correspond-
ing to each part there will be a concurrence consisting of a
fact from the X and a fact from the Y hierarchy. If nothing
in the nature of A "implies without including" sufficient
descriptions of the infinite hierarchy of parts, we shall have
an infinite number of "ultimate and undetermined" concur-
rences.[1] If the Primary Theory were true the concurrences
would no longer be ultimate. For "both the sufficient de-
scription of each secondary part and its place in the series
would follow from sufficient descriptions of the primary
parts".[2]

The sufficient descriptions and place-qualities of the second-
ary parts do not follow from sufficient descriptions of the
primary parts in the sense that the fact that the primary
parts have the sufficient descriptions which they have entails
in the case of each sufficient description and the place-quality
with which it concurs that they both apply to *this* where
"this" is a name for a substance.[3] (See above remark on
definition of 'indicates'.) In other words the Primary
Theory does not avoid the infinite number of ultimate con-
currences in the sense that the fact that A has Q, the primary
quality which it has, entails without including, in the case of
each concurrence, each constituent of that concurrence.

McTaggart then is not objecting to an infinite number of
ultimate concurrences in this sense of 'ultimate': for the
Primary Theory *does* avoid what *he* means by 'ultimate
concurrences'.

What then does McTaggart mean by 'ultimate con-
currences'? The Primary Theory or rather the fact that
A has Q, where Q is a primary quality, avoids the ultimate-
ness of the infinite number of concurrences in the sense that
it entails—without including—with regard to each pair of
qualities which concur that they concur, *i.e.*, that they each

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[1] See *N. of E.*, p. 202.   [2] *N. of E.*, p. 211.

[3] In § 202 of the *N. of E.*, McTaggart may have mistakenly thought
that 'intrinsically determines a sufficient description of the part of B in
question' means 'entails "φ (where φ is a sufficient description) applies
to *this*",' where *this* is in fact the part of B in question.

apply to some the same thing. I think that McTaggart can't do better than mean this. Let us assume he does.

It remains to consider his argument. First. Is it clear that if A has an infinite series of parts each having a sufficient description and each having also a place-quality then there will be an infinite number of ultimate concurrences unless A has an indicator? It is. For unless there is some fact, F, which entails—without including—with regard to an infinite number of the infinite number of sufficient descriptions that they apply to something there will be an infinite number of ultimate concurrences. If F is about A, A has an indicator—to wit the predicate in F. If F is not about A, A has an indicator—to wit "has parts sufficient descriptions of which are entailed by F".

Second. *Are* the infinite number of ultimate concurrences impossible? It is admitted that in the first sense we considered they are possible. The question is, we must remember—Is it impossible that there should be an infinite set of sufficient descriptions in fact paired off with an infinite set of place-qualities while no fact entails this, *i.e.*, entails with regard to the members of each pair that they apply to some the same thing?

Let us consider. Are we to maintain that the ultimateness of the concurrences would be impossible in the case of *any* two infinite sets of qualities? Such ultimate concurrences might be thought impossible or highly improbable for the following reason. If two sets of qualities are *mentioned* and it is asserted *with regard* to each of the qualities in the one set and another (a different one for each of the qualities in the first) in the second that they concur, the improbability of such an assertion gets greater as the number of qualities in each set is greater—"p_1 concurs with π_1, p_2 with π_2 . . . p_n with π_n" increases in improbability as n increases. But it does not follow that "*Some* set of qualities having n members concurs with some other set of qualities" is very improbable, much less impossible, even if n is infinite. A die has 6 sides. The probability, of course, that some, a *specific*, side, *e.g.*, 2, will occur is $\frac{1}{6}$. But the probability that some, *any*, side will occur is $\frac{6}{6}$.

Perhaps however it is *immediately obvious* that an infinite series of ultimate concurrences between any two sets of qualities is impossible. It is not immediately obvious that two things couldn't have two qualities apiece without there being some fact which entails with regard to each member of each pair that it applies to some the same thing as the other member of that pair applies to. So much for a finite series of

ultimate concurrences. But what difference would the infinity of such a series make?

Perhaps, however, it is admitted that some infinite sets of concurrences might be ultimate, and asserted only that in the specific case of sufficient descriptions and place-qualities this is impossible. But why? What *are* these place-qualities? They are not of the form "is a part of this" or "is a member of the set of parts the members of which are this and that". Or if they are, there certainly is no fact which entails-without-including them all. Suppose them then of the form "is a part of the thing which has ϕ" where ϕ is a sufficient description. What peculiarity has this case of sufficient descriptions and these place-qualities which makes it impossible that they should apply in pairs without some fact which entails that they are paired as they are paired? An hypothesis can be asserted to be impossible only when it includes or entails either (1) that both of two contradictory propositions are true, or (2) that of two qualities the first of which indicates the second, *e.g.*, "triangular," "three-sided," the first applies to something while the second does not, or (3) that two inconsistent qualities, *e.g.*, "red," "green," apply to the same thing. McTaggart does not, and further we cannot, *deduce* anything such as these from the hypothesis of the ultimate concurrences. Does it *include* any one of the above three kinds of disaster? I disbelieve that it contains contradictory propositions. And *what* are the troublesome qualities? I believe that the hypothesis in question is possible.

(The infinite number of ultimate concurrences could not be avoided by the Pointing Theory—at least not without supposing that the sufficient descriptions which it provides be indicated by another set of qualities and that set by another set and so *ad infinitum*.)

If, then, McTaggart's argument could be made with exclusive descriptions instead of sufficient descriptions, and the hypothesis of ultimate concurrences between these *exclusive* descriptions and place-qualities were impossible, every substance must have an indicator, and therefore one of the first three theories as to the nature of existence be true.

If, however, you agree with me that the hypothesis is not impossible we will consider McTaggart's second argument for the proposition that every substance has an indicator. It runs as follows—

(a) If the nature of A supplies, *i.e.*, either includes or indicates, sufficient descriptions of parts of parts of A then some part of the nature of A indicates those descriptions, *i.e.*, A has an indicator;

(b) The nature of A does supply such descriptions.

(b) is rapidly proved thus. Since A is a substance it must have parts within parts to infinity each with a sufficient description. And it is part of the nature of A to have parts with the sufficient descriptions which they have. The nature of A, therefore, supplies—by including—sufficient descriptions of parts of parts of A.

This argument is useless only because the proof that every substance has a *sufficient* description is fallacious.

I am now going to state McTaggart's argument for premiss (a) differently, though not better of course, than he does on page 203 of *The Nature of Existence*. Say that a predicate of A, ϕ, is a description of A *adequate* for supplying sufficient descriptions of a series of parts of parts of A, if and only if, both (i) "A has ϕ" entails with regard to each of a set of descriptions, ψ_1 . . . ψ_n, that it applies to something or other; and (ii) what in point of fact they *do* apply to is an infinite series of parts of parts of A—for each part a sufficient description and for each sufficient description a part (in other words—if ϕ is an indicator!).

Clearly ϕ may be a compound quality of the form "has ϕ' and ϕ''" while further ϕ' (and perhaps also ϕ'') is by itself a description of A adequate for supplying sufficient descriptions of an infinite hierarchy of parts of A. On the other hand ϕ may contain no element which is by itself adequate for supplying the required descriptions, and if so ϕ is a *minimum* adequate description for supplying, etc. If it *does* contain an element ϕ', adequate, etc., perhaps ϕ' contains no such element, *i.e.*, adequate for supplying the required descriptions, and then ϕ is not itself a minimum adequate description but it contains an element, ϕ', which is.

It is clear that any adequate description either is itself a minimum adequate description or contains one.

Suppose McTaggart's premiss (a) false, that is, suppose that the nature of A supplies sufficient descriptions of an infinite hierarchy of parts of A while at the same time A has no indicator. It follows that A's nature supplies the descriptions by inclusion, *i.e.*, contains a description of A, D, of the form "has as a part something which has ψ_1 . . . has as a part something which has ψ_n," where ψ_1 . . . ψ_n are an infinite number of sufficient descriptions describing the parts of A.

Now concerning this description, D. It does not, on the present hypothesis that (a) is false, *contain* a minimum adequate description. For take any element, d, in D which supplies by inclusion sufficient descriptions for a set of parts σ_1 of A (*e.g.*, d = "has as a part something which has ψ_1 and

has as a part something which has ψ_2," where ψ_1 and ψ_2 are sufficient descriptions of the members of σ_1). This element in D cannot on the present hypothesis be an element in a minimum adequate description made up of elements of D for supplying sufficient descriptions of an infinite hierarchy of the parts of A. For (i) any description, made up of elements of D, which contained it would not be *adequate* unless it also contained an element of D, d', which contains sufficient descriptions of a set of parts σ_2 below σ_1; while (ii) any element of D which contained d and also d' would not be minimum. (i) is true because otherwise d would be adequate for supplying the sufficient descriptions of each set of parts below it and since it certainly does not include them it would indicate them and so be an indicator; but, on the present hypothesis, A has no indicator. (ii) is true because if a set of parts of A, σ_2, is sequent to a set σ_1, then any set of sufficient descriptions which contains a sufficient description of every member of σ_2 indicates sufficient descriptions for the members of σ_1. (Of this more later.) No element of D, then, can be an element in a minimum adequate description made up of elements of D, so of course D contains no minimum adequate description. And, by the same fact, D is not itself a minimum adequate description—on the present hypothesis. The present hypothesis, therefore, must go and McTaggart's premiss (a) is true.

I am going to try to put shortly an objection of Dr. Moore's to McTaggart's argument. McTaggart's proof depends on the premiss numbered (ii) above. And (ii) upon "if a set of parts σ_2 is below a set σ_1 then any description which contains a sufficient description of every member of σ_2 indicates sufficient descriptions of each member of σ_1". This proposition is not self-evident and if it is proved at all it is proved by the proposition " If (1) x and y be a set of parts of z and ϕ and χ be respectively sufficient descriptions of x and y then (2) the fact that they each apply to something or other entails with regard to a property ' a thing which has for a set of parts a thing which has ϕ and a thing which has χ ' that it applies to something or other and (3) the thing to which in point of fact the property does apply is z and (4) the property is a sufficient description." But is the expression ' is a set of parts ' being used in such a sense that " x is a set of parts of y " is compatible both with " x is not identical with y " and with " x is identical with y " ? In this sense " the members of a group are a set of parts of the group ".[1] And then we can-

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[1] *N. of E.*, p. 135.

not say "If (1) then (4)"—we cannot say "if x and y be a
set of parts of z and ϕ and χ be respectively sufficient descriptions of x and y then there is a property "a thing which has
for a set of parts a thing which has ϕ and a thing which has
χ" which is a sufficient description".   For the property may
apply to more than one thing—thus in the square, mentioned
at the beginning, if ϕ and χ belong to the parts of the square
B and C respectively (where B and C are the members of the
set of parts we called a), the property will belong to two
things, *viz.*, the square and the set of parts B, C.   Or is the
expression being used in the more natural sense in which
"x is identical with y" is incompatible with "x is a set of
parts of y"?   In this sense the set of parts B and C is not
a set of parts of itself—it is a set of parts of only one thing,
viz., the square: so that we could say "if (1) then (4)".   But
now we cannot say if (1) then (2)—that if x and y be a set
of parts of z and ϕ and χ be respectively sufficient descriptions
of x and y then there is a property "a thing which has for a
set of parts a thing which has ϕ and a thing which has χ" such
that the fact that ϕ and χ apply to something entails that
that property does.   "For from the facts that 'there is a
thing which has ϕ' and 'there is a thing which has χ' it
follows only that there is a thing *which has for members* the
thing which has ϕ and the thing which has χ : it does not
follow that there is anything whatever which has them for
a set of parts, in a sense in which this does not follow from
the fact that there is a thing which has them for members;
it does not follow, *e.g.*, that there is any spatial whole which
they make up."—Moore.

McTaggart's argument is refuted.

Let us ask a new question—Could McTaggart alter his
argument so as to escape this objection.   I suspect that he
could—by altering his definition of sufficient description.
This would necessitate such alteration throughout the whole
of this one of his arguments for his final conclusion about the
Universe; though of course his first argument depending on
ultimate concurrences would need no such alteration.   I
have not thought out the necessary alteration in detail.   It
might be fatal somewhere.   But I am inclined to think not.
This is the alteration—Say that ϕ is a sufficient description
of A, if and only if, both (i) ϕ contains no part which is a
substance, and (ii) ϕ applies to A, and (iii) ϕ applies to nothing
which is neither A nor a set of parts of A.   With this sense
of 'sufficient description' and the first sense of 'is a set of
parts' above, McTaggart can make a new argument which
escapes Dr. Moore's objection : for then "a thing which has

for a set of parts a thing which has ϕ and a thing which has χ" will be a sufficient description.[1]

But no alteration will save the argument from the following objection. The proposition, "Any adequate description of A is either itself a minimum adequate description or contains one" is essential to the argument. To quote McTaggart (p. 203)—"It is clear that for every adequate description for any purpose, there must be at least one minimum adequate description which will differ from it by the omission of elements superfluous for the purpose, or will be identical with it, if no element in the original description is superfluous." But McTaggart offers no proof of the impossibility of the alternative that *every* element in an adequate description be superfluous. Perhaps this is because the proposition looks silly. It looks silly because it looks as if it entails the self-contradictory proposition that there might be a description which was adequate even when all its elements had been removed. It looks to, but it doesn't—each could be removed but not all. Or it might be thought impossible that every element in an adequate description be superfluous because of a proof that this *is* impossible in any adequate description in which the number of elements is finite.

It is clear that A would have no minimum adequate description on the Pointing Theory. (We have I think reached the most important point in the discussion.) Can it be proved that any description, D, of A, adequate for supplying the sufficient descriptions for A's parts is either itself a minimum adequate description or contains one?

If D is such a description of A then there exists a series of descriptions such that (i) its first term is D, (ii) each term consists of the elements [2] of the term above it less one, (iii) each term is adequate. It is clear that if any term in the

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[1] Would McTaggart be willing to make such an alteration? From what he says on page 138 I think he would. He says there that if two groups have the same "content" they are the same substance, and other things which I think indicate that he would not mind the alteration in the definition of 'sufficient description'. Clearly something more ought to be said about this point.

[2] The only elements in the sense we want now are those bits of D which supply by inclusion sufficient descriptions of a whole set of parts of A. Thus though "has a part which has ϕ" is an element in D, it is *not* in the sense used in *this* argument. The elements in this sense are items in D, where D is a class of classes of descriptions of A such that the descriptions in any class together supply by inclusion sufficient descriptions for each member of a set of parts of A and the classes together so supply such descriptions for each set of parts of A ; *e.g.*, " has a part which has ϕ and has a part which has ψ," where ϕ and ψ are respectively sufficient descriptions of the members of a set of parts of A, is an item in D.

series contains an element which is adequate then there is a
term below it in the series.   And suppose the number of
elements in D is finite.   It now follows that either (1) there
is some term, T, in the series which though it contains more
than one element of D yet contains no element of D, *d*, such
that T without *d* would still be adequate.   And then T is a
minimum adequate description.[1]   Or (2) there is a term in
the series (it will be the last) which consists of only one
element of D—because the number of elements in D is finite.
This term is (*a*) simple and (*b*) adequate.   Therefore it is (*a*)
minimum and (*β*) adequate.

But if the number of elements in D is infinite there can be
no such proof.   For then we could not argue " If alternative
(1) above is not the case then alternative (2) is ".   Indeed we
know that alternative (2), on which one term in the series
reached from D by successive reductions of one has a term
in which there is only one element, could never be the case
when the number of elements in D is infinite.[2]   McTaggart
has therefore failed to prove that if the nature of a substance
supplies the descriptions it requires then it indicates them.

McTaggart has a second argument to prove that the nature
of A does supply sufficient descriptions of parts of parts of A
which is unsound if it is not unnecessary.   For if it is true that
A must have parts of parts each with a sufficient description
McTaggart's first argument (see above) that A's nature in-
cludes and therefore supplies the descriptions is sufficient ;
and his second argument depends on the same point.   So
that it is worth while reading it only if you think you will be
interested in certain other errors which it contains.

The argument goes as follows.   If a thing, A, is a substance
there must be *some* selection from the qualities which are
possible sufficient descriptions[3] at the time, the members of
which selection sufficiently describe an infinite hierarchy of
parts of A.   And the fact that A is a substance does not fix
which of the possible selections is adopted by the parts of A.
McTaggart expresses all this by saying that part of the nature
of A, *viz.*, the quality of *being a substance, pre-supposes* suffi-
cient descriptions of A's parts.   The definition of ' F (a fact)
pre-supposes F' (a fact) ' is roughly as follows : ' F is the case,

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[1] T may be D.

[2] See Russell on Positive Theory of Infinity in *Our Knowledge of the
External World*, p. 197.

[3] ' φ is a possible sufficient description ' means ' if φ applied to some-
thing it would be a sufficient description ' or (better) ' φ is a possible
sufficient description ' means ' φ does not at present belong to more than
one thing and it contains no part which is a substance '.

and F materially implies[1] that there is some fact with a predicate in it which is some (any) one of $\psi_1 \ldots \psi_n$ and F does *not* entail *which* of $\psi_1 \ldots \psi_n$ occurs. Let ψ_m be the alternative which in fact occurs and F′ be the fact with ψ_m as predicate in it. Then F pre-supposes F′. *E.g.*, S is a triangle. This fact implies that something is either scalene or isosceles. S, in point of fact, is scalene. Then "S is a triangle" pre-supposes "S is scalene". And in a derivative sense "triangularity" pre-supposes "scaleneness" *at the moment* that the facts are the case.

Now McTaggart holds that if part of the nature of A pre-supposes sufficient descriptions of parts of parts of A then some other part of the nature of A must *supply* these descriptions. This proposition is true; for the nature of A would have to include them. But McTaggart's next argument for the proposition is quite unsound.

The argument is as follows. Either (*a*) no sufficient description of any set of parts of A is independently fixed, or (*b*) some is. A sufficient description of a set of parts is independently fixed if that sufficient description of the set of parts sufficiently describes each member of the set otherwise than in terms of sufficient descriptions of the parts of the member. (For sufficient descriptions in terms of sets of parts see under discussion of minimum adequate description.)

Alternative (*a*) that no sufficient description is independently fixed is impossible. For if it were the case each sufficient description of each set of parts would depend on a sufficient description of a set below it, which in its turn depended on a sufficient description of a third set of parts and so on without end. (See *N. of E.*, p. 198.) Therefore if some part of the nature of A pre-supposes, and no part of the nature of A supplies, sufficient descriptions of parts of parts of A, there must be some set of parts of A such that it has at least one sufficient description which is independently fixed. But on the present hypothesis that the nature of A pre-supposes sufficient descriptions of parts of parts of A, this is impossible. For—and here McTaggart uses at least three arguments though he says of the two which we shall discuss

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[1] p materially implies q if it happens not to be the case that p is true while q is false. In McTaggart's definition of 'pre-suppose,' § 183, he puts 'entails' for our 'materially implies'. But in this sense A's substantiality does not pre-suppose sufficient descriptions of A's parts. For it is partly a contingent fact at any time that the qualities which are possible sufficient descriptions at that time are possible sufficient descriptions. For this fact depends on the fact that the qualities are not applying to two things.

first that they are the same. Let us take the argument
which he writes last first.

Say that any fact which is pre-supposed by any fact about
A is a pre-supposition of A. Corresponding to each sufficient
description pre-supposed by the nature of A there will be a
pre-supposition of A : namely the fact that the sufficient de-
scription applies to the part of A to which it does apply. It
is clear that instead of talking about sufficient descriptions
being independently fixed we may talk equivalently of pre-
suppositions being so fixed. We may now state the first
argument. " We saw in § 189 that if no pre-supposition in
the series is independently fixed, a contradiction arises. It
is therefore necessary—since they must be fixed somehow—
that at least one of the presuppositions must be independently
fixed. But as we have seen it is not necessary for any pre-
supposition which is precedent to any pre-supposition to be
independently fixed, since it will be fixed by the fixing of
any sequent pre-supposition. And every pre-supposition is
precedent to some pre-supposition. Therefore it is *not* neces-
sary for any pre-supposition to be independently fixed. And
thus we have a contradiction " (*N. of E.*, p. 201).

But this argument is unsound. The error is caused by
the ambiguity of the phrase ' Some pre-supposition must be
independently fixed '. It is true that (1) " Part of the nature
of A pre-supposes and no part of the nature of A supplies
sufficient descriptions of parts of parts of A " together with
(2) " If there is such a series of sufficient descriptions of sets
of parts of A one of them is independently fixed," entails
" Some pre-supposition about some set of parts is indepen-
dently fixed ". It is true further that there is no specific pre-
supposition, P, such that the two propositions (1) and (2)
above entail with regard to *that* pre-supposition a fact " P is
independently fixed ". But these two true things are not
incompatible.

The fallacy is obvious in the following example, " Since
everybody in Weech Road has a name " and " X lives in
Weech Road " we can say " There must be some name which
is the name of X ". We can also say " There is no name
which must be the name of X "—in the sense that " Each
name is such that it is not necessary that *it* be the name of
X "—you cannot tell *what* the name of the person to whom
I refer by ' X ' is.

It might be said that McTaggart really first proves that
given the present hypothesis some pre-supposition must be
independently fixed, and then proves that given the present
hypothesis no pre-supposition *is* independently fixed. But

he doesn't prove this last thing. He could only prove it if
he added to the present hypothesis the proposition that each
set of parts has only *one* sufficient description and therefore
on the present hypothesis only one pre-supposition. And he
can't add this, see below.

It can easily be seen that the above arguments are either
unsound or fatal to McTaggart. For if they are not unsound,
arguments similar to them, except that for ' pre-supposition'
we put ' sufficient description,' would prove the infinite series
of sufficient descriptions which he asserts to be the case to
be impossible.

Let us take his second argument. We require the con-
ception of a Total Ultimate Pre-supposition. It is obvious
that the same fact, F, might pre-suppose both of two facts
one of which entailed the other. *E.g.*, This is a triangle and
is in fact equilateral and equiangular. Both of the last two
facts are pre-supposed by the fact that this is a triangle and
the first of them entails the second.

Suppose π the totality of facts which are pre-suppositions
of A. Is there a superfluous sub-set p within π, *i.e.*, such
that each item in p is entailed by an item in π which is not
an item in p? If there is, remove p, and the remainder of
π is a Total Ultimate Pre-supposition of A. If there is not,
π itself is a Total Ultimate Pre-supposition of A.

We may now state the argument. Any set of parts, which
has below it a set of parts with a pre-supposition indepen-
dently fixed, has *a* pre-supposition which is entailed by a pre-
supposition of the lower set of parts—a sufficient description
in terms of sets of parts. Therefore (with a suppressed
premise that every set of parts, if it has a pre-supposition,
has only *one*) *any* pre-supposition which has below it an
independently fixed pre-supposition is entailed by that lower
pre-supposition : and is therefore not included in the total
ultimate pre-supposition. But if the nature of A pre-supposes
the sufficient descriptions which it requires and they are not
all dependently fixed it follows that below any pre-supposition
there *is* one which is independently fixed. For if there were
a pre-supposition below which there was no independently
fixed pre-supposition then there would be below it an infinite
series of pre-suppositions each term of which was dependent
on a lower term. And this we have seen to be impossible.
Therefore the pre-supposition, P, of any set of parts of A is
not itself included in the total ultimate pre-supposition of A
and, therefore further, nor is any pre-supposition of A which
entails it. And this is impossible.

If the suppressed premise weren't true these annoying

things wouldn't happen.   What would happen is this.   Some
sets of parts would have one pre-supposition which was in-
dependently fixed and *another* entailed by the independently
fixed pre-supposition of a lower set.   Any independently fixed
pre-supposition would be itself included in the total ultimate
pre-supposition.   Any *not* independently fixed pre-supposition
would be entailed by something included in the total ultimate
pre-supposition—namely that independently fixed pre-sup-
position of a lower set of parts which entailed it.   The
suppressed premise is not true.   For each set of parts has as
many sufficient descriptions as there are sets of parts below
it.   And if it were true, McTaggart's final conclusion that the
Universe is a primary whole would be false.   For if that
conclusion were true, each set of parts would also have a
sufficient description entailed by a sufficient description of a
set above it.   And further if these annoying things really
happen on the present hypothesis they would also happen if
we supposed that some part of the nature of A supplied suffi-
cient descriptions of parts of parts of A.   For it would still
be true that another part of the nature of A, *viz.*, "being a
substance" pre-supposed these descriptions.   This is also so
in the case of the arguments just above.   McTaggart fails to
notice it because he fails to see that his only reason for saying
that the whole nature of A either pre-supposes sufficient de-
scriptions of A's parts or supplies them is that part of the
nature of A, *viz.*, the quality of "being a substance," pre-
supposes them.

McTaggart has one other argument.   It says that a conse-
quence of the present hypothesis is an infinite number of
ultimate concurrences.   This is true.   But see above, p. 427.

We have found that the theory of the determining corre-
spondence of substance is the theory that the universe must
be a primary whole or a set of primary wholes.

We examined McTaggart's argument for the theory.   And
found him mistaken in holding that the only sort of indicator
is a primary quality since there are three other sorts of in-
dicator.   The last of these would, however, land us in diffi-
culties, while the first two are such that McTaggart could
fairly claim to have proved an important result about the
universe if he could prove that it must have one of these two
kinds of quality or a primary quality.

But he fails to prove this.   For he fails to prove that every
substance has an indicator.

His first proof of that depends upon our knowing that it is
impossible that there should be an infinite number of ulti-

mate concurrences between sufficient descriptions and place-qualities of the parts of a substance, A.   And this we do not know.

His second proof is useless unless we know that every description of A adequate for supplying sufficient descriptions of an infinite hierarchy of parts of A either is itself a description which is a minimum adequate description for that purpose or contains one.   This proposition is not self-evident and the only argument we could find for it is fallacious.

Further both proofs are useless unless we can prove that every substance must have a sufficient description.   And this we cannot do.

McTaggart has failed to find for us any proper reason for saying what he says about the universe.   And we found none for ourselves.   We shall not, then, be able to use the theory of the determining correspondence of substance in any argument to show that the universe is otherwise than the bit we know of it seems—namely, a muddle of some things we do not want so and some we do.

III.—ON McTAGGART'S CRITICISM OF
PROPOSITIONS.

BY R. M. BLAKE.

THE second chapter of *The Nature of Existence* contains an
elaborate argument against the reality of something which
McTaggart calls " propositions ". In what follows I wish
first to point out that despite his polemic McTaggart does
explicitly admit that there are propositions, in a certain sense
of the term ; but that he nevertheless betrays a very strong
reluctance to state his theory of truth and falsity in terms of
this admission—a reluctance which can only be explained by
the fear that if propositions are admitted at all, they will turn
out to be of a sort the reality of which he wishes to deny. I
shall then proceed to argue that·this fear is by no means
baseless—that in fact the admission of the reality of proposi-
tions in the sense in which McTaggart does explicitly admit
them inevitably commits him, by virtue of his own further
assumptions, to the admission of the reality of propositions
of a sort which he apparently wishes particularly to avoid.
And the implication will be that anyone who admits that
there are propositions in McTaggart's sense at all, and who
makes other assumptions similar to those which he makes,
will inevitably be committed to a like conclusion. Finally, I
shall observe that it *may be* that McTaggart was not *really*
concerned to deny that there are propositions of the sort
which he *apparently* wished particularly to avoid, but only to
deny that there are propositions of still another sort. And
with regard to this sort of propositions I shall argue that even
if they were in fact the only sort of propositions that he really
intended to deny, it is nevertheless clear that he has no right
to make even this denial.

I.

The main aim of Chapter II. is to show " that there is no
reason to hold that there is anything real which is non-
existent " (Sec. 7). And it is in order to establish this con-
clusion that McTaggart thinks it necessary to argue against
the reality of " propositions ". But it is very plain that, as I

have said, he does not really mean to deny that in *some* sense of the term there are such entities as propositions.   For in Section 106 he describes implication as "an indefinable relation between propositions," and in Section 107 he speaks of "the proposition P asserted in the judgment M," etc.   And again in Section 23 he states explicitly that he has no objection to admitting that there are propositions, provided "propositions are maintained to be real as constituents of beliefs, and not otherwise".   For "such propositions would be existent, since it is impossible that a constituent of an existent thing should not itself exist" (Sec. 23).   A "proposition" in the sense in which McTaggart admits that there are propositions must, I think, be identified with what he elsewhere terms an "assertion" which he refers to as something that "is believed" (Sec. 16), and with what he speaks of as "what is asserted in a belief" (Sec. 18).

Nevertheless it is fairly obvious that McTaggart is by no means in love with propositions even in this sense of the term ; for he persistently ignores them whenever it is possible to do so, and at times indulges in the most extraordinary shifts and turns, apparently simply in order to avoid mentioning them.   For example, he states his theory of the nature of true beliefs quite as though there were no propositions at all, and as though nothing entered into the situation, but, on the one hand, beliefs as mental occurrences, and, on the other, the facts to which these true beliefs "correspond" (Sec. 10). And he proceeds to argue explicitly against the view that anything further whatsoever in the way of "propositions" is involved (*cf*. Secs. 14, 16).   Again, the nature of false beliefs is explained in similar terms, without reference to any sort of "propositions" (*cf*. Sec. 19).   But most striking of all is the avoidance of any mention of propositions in the account of what it means for two beliefs to be beliefs "in the same thing" (*cf*. Sec. 18 and note; Sec. 21).   For *prima facie* this would appear to mean simply that the two beliefs in question assert the same proposition.   Now McTaggart does not, as we have seen, altogether deny that there are propositions, and he is not unaware of the possibility of this simple explanation (*cf*. Sec. 21).   Yet he studiously avoids it, and offers instead an explanation couched in terms well calculated to create the impression that no propositions are involved at all.

What is the reason for this procedure?   Why does McTaggart, despite the fact that he fully admits that there are propositions, in some sense of the term, so persistently ignore them?   Why does he constantly state his views in terms which seem to imply that there are no propositions at

all? Why is he so concerned to keep them in the back-
ground, and to hustle them out of sight as much as possible
whenever they embarrassingly obtrude themselves? The
answer is, I think, clear. McTaggart is afraid that if he gives
propositions an inch they will take an ell. He fears that if
they are allowed any standing at all they will begin to put on
airs, and instead of contenting themselves with being "real
as constituents of beliefs and not otherwise" will before his
very eyes take on some sort of independent status. And
especially he fears that they will turn out to possess character-
istics such that according to his view of the matter, they
would, if real at all, have to be non-existent. And in point of
fact we shall, I think, find that McTaggart's fears are well-
grounded. We shall find that if he admits that there are
propositions at all, in any sense of the term, he will inevitably
be driven to the recognition that there are propositions of the
sort that he particularly wishes to avoid.

II.

In the first place, if we take at their face value certain of
McTaggart's statements concerning the sort of proposition
that he desires not to recognise, it will be immediately evident
that if anything at all be really asserted in any belief what-
ever, it will be in some sense precisely of this sort. He states
the view that he wishes to defend as the view that there are
no *non-existent* propositions—no propositions that "are real
without existing" (Sec. 7). But what, more precisely, does
this mean? In introducing the terms *reality* and *existence*
(in Chapter I.) McTaggart lays it down that these terms,
though distinct in meaning, are both equally indefinable.
Nevertheless he holds (Sec. 5) that "we are able to say in
what cases reality involves existence," and also in what cases
it would involve non-existence. In particular, we are told,
a proposition such as " ' Socrates is wise ' (as distinguished
on the one hand from the man Socrates who is wise, and, on
the other hand, from the psychical event of my knowledge that
Socrates is wise) does not exist, even if it is real ". Again we
learn that by a proposition, in the sense in which it has been
asserted that propositions are real without existing, " is meant
such a reality as ' Socrates is wise,' or ' the multiplication
table is green,' as distinguished on the one hand from any-
one's belief that Socrates is wise or that the multiplication
table is green (which belief would, of course, be existent), and
on the other hand from any existent thing about which the
proposition may be made—such as, in the case of our first
example, the existent Socrates" (Sec. 7). And "existence

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belongs to real substances . . . but not . . . to propositions, should . . . propositions be real" (Sec. 5). Advocates of propositions argue that if truth is objective then "there is something true besides beliefs". This McTaggart disputes. According to him "nothing is true but mental states". And there is no necessity that a true belief "should depend for its truth on anything *true* other than itself" (Sec. 16).

But we have already found McTaggart himself admitting that there is involved in a belief, in addition to the mental state or act of believing, another factor in the situation—something which "is believed," something, moreover, which is called an "assertion," or even a "proposition". And further, it is clearly stated, concerning this proposition, that *it* is true, if, and only if, *it* corresponds to a fact (Sec 16; *cf.* Sec. 18, 23). Now any factor in a total state of affairs is obviously other than any other factor in the same state of affairs ; and, equally obviously, it is other than the total state of affairs within which it is a factor. And accordingly, the "assertion" involved in the case of a belief is something "other than" that belief itself—whether the term "belief" be interpreted as referring to the mental act of believing as distinguished from the assertion believed, or as referring rather to the total state of affairs as inclusive both of the believing and the assertion believed. But McTaggart admits that in the case of a true belief the assertion involved is true. Consequently there *is* in the case of a true belief (and an analogous conclusion must clearly hold for false beliefs) something "other than itself" which is nevertheless true.[1]

But what then becomes of McTaggart's contention that "nothing is true but mental states"? An act of believing

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[1] It might perhaps here be objected that what McTaggart refers to as an "assertion," and which I have identified as a proposition asserted, may with equal propriety be referred to as a "belief," and that consequently McTaggart is not really, as I have insisted that he is, committed to the view that there is in the case of a true belief (*i.e.*, true "assertion") something "other than itself" (*i.e.*, other than this "assertion"), which is nevertheless true. But although I think that McTaggart's argument here and elsewhere profits by the ambiguity of the term *belief* to the extent of gaining an appearance of plausibility which it does not deserve, it seems to me quite clear that neither in the present passage nor elsewhere does he consciously intend to use the term *belief* in the sense in which it refers to *what is believed*, but rather, and only, in the sense in which it refers to the act of believing itself, or to the total situation within which the act of believing and the assertion believed are constituents. For all his formal statements regarding the status of beliefs invariably refer to them as psychical states, mental events, and the like. And at any rate in the present passage he clearly identifies his view that nothing is true but beliefs with the view that nothing is true but mental states.

a certain assertion is doubtless a mental state; but there is
no reason whatever to suppose that *what is asserted* in any
such mental act is *itself* either an act of believing, or a mental
state of any kind, or even an occurrence at all.   But then, if
what is asserted in some beliefs is admitted to be true,
and if there is no reason to suppose (as there clearly is not)
that what is believed is a mental state at all, how can it be
denied that there may be something true besides mental
states?[1]

But further, the "proposition" which we have found
McTaggart admitting as something asserted in a belief is not
only other than the *belief*, but is clearly other also than the
fact which makes it true, for it is said to "correspond" to the
fact; and the relation of "correspondence" in the sense in
which this relation is identified with "truth" surely implies
the diversity of its terms.   Moreover I think it is plain,
although McTaggart does not explicitly say so, that this
"assertion" must also be other than any existent thing about
which the assertion may be made—such as, for example, in
the case of the assertion "Socrates is wise," the existent
Socrates (supposing that there were any existent Socrates).
But if A is "other than" B, it is clearly also true that in
a quite legitimate sense it may also be said to be "distinguished
from" B.   And therefore McTaggart appears to be committed
to the conclusion that there are propositions in precisely the
sense in which he tells us that he wishes to deny that there
are propositions, *i.e.*, propositions that are distinguished both
from belief on the one hand, and from fact, or from "any
existent thing about which the proposition may be made" on

[1] We might inquire further whether the relation of correspondence to
a fact which, according to McTaggart, constitutes the truth of a belief,
is identical with the relation of correspondence to fact which constitutes
the truth of its "assertion".   If so, then so far as it from being the case
that "nothing is true but mental states" or that there is no necessity
that a true belief "should depend for its truth on anything *true* other than
itself," that the truth of beliefs has no meaning whatever apart from that
of propositions.   If not, then we should be justified in turning against
McTaggart a form of argument which he himself employs against those
who believe that there are propositions (*cf.* Sec. 14).   "If the proposition
is true," we may say, "it will correspond to the fact.   The belief which
asserts it may also correspond to the fact, but in that case we shall have
two correspondences to the fact—one of the proposition to the fact,
and another of the belief to the fact—and, consequently, two truths.
But what reason is there to believe in this second correspondence at all ?
A sufficient meaning is given to the statement that the belief is "true"
if we explain this as meaning that the proposition believed is true, in the
sense that *it* corresponds to the fact.   What further reason can be given
why, in this same sense of correspondence, a *further* correspondence of
the *belief* to the fact would be necessary ?"

the other.   And since, as he assures us, "Whatever is, is
real" (Sec. 2) these propositions, concerning which he has
told us that they do not exist even if they are real (Sec. 5),
must be, according to his own statements, both real and non-
existent.   Thus McTaggart appears to be committed precisely
to the conclusion which he most wishes to avoid, *viz.*, that
there are non-existent propositions.

<div style="text-align:center">III.</div>

But perhaps we have been misinterpreting McTaggart's
real position.   Perhaps when he asserted that any proposi-
tion "distinguished from" belief on the one hand, and from
fact on the other, would, if it were real at all, be non-existent,
he did not intend the expression "distinguished from" to be
taken in the sense in which we have hitherto been taking it.
Perhaps by a proposition that is "distinguished from" a
belief he meant a proposition which should be not merely
"other than" a belief, but rather a proposition that should
be *independent* of beliefs, in the sense that it is something
which does not begin to be real when asserted by some
belief, nor cease to be real when no belief is any longer
asserting it; but, on the contrary, is, if real at all, real even
though there have been times, or is now a time, or are going
to be times, when no beliefs asserting it were, or are, or will
be, occurring—a proposition, accordingly, the reality of
which is, in this sense, not dependent upon the occurrence
or non-occurrence of beliefs which should be beliefs in that
proposition.   Perhaps it is such "independent" propositions
that McTaggart has in mind in allowing only such proposi-
tions "as are maintained to be real as constituents of beliefs,
and not otherwise" (Sec. 23) and in insisting that "there
is no truth independent of . . . beliefs" (Sec. 15);—*i.e.*,
that there are no true propositions independent of beliefs.
Perhaps it is with regard merely to such "independent"
propositions that he intends to maintain (1) that if there
were any such propositions at all they would be non-
existent, and (2) that there is no reason to hold that there
are any such propositions.

But can McTaggart really get on without admitting that
there are such "independent" propositions?   I shall argue
that he cannot; and that this is indicated by the fact that
he does not succeed in developing any tenable theory of true
and false beliefs without introducing propositions of precisely
this sort.   The central difficulty is to account for timelessly
true and timelessly false beliefs.   McTaggart admits that,
whether or no it be the case that all truths are timeless, it

is nevertheless certain that at least *some* beliefs are, in *some* sense of the term, timelessly true.   For there are, he tells us, beliefs that "assert something which is true or false without reference to the time at which it is asserted" (Sec. 18).   But his position with regard to such timelessly true beliefs is that "It does not follow that, if there are beliefs which would be true whenever they are made, they must correspond to timeless propositions, or to anything timeless. . . . It does not require anything timeless to secure that" such beliefs "shall be true whenever they are made" (Sec. 18).[1]

But now in precisely what way does McTaggart propose to account for the reality of beliefs that are in some sense timelessly true, without admitting that their reality involves the reality of anything that is strictly speaking timeless at all?   His theory is, I take it, that what would commonly be called a timeless truth is really always simply a true *belief*, which, although not strictly timeless at all (inasmuch as a belief is a psychical occurrence limited to one particular mind at one particular time), may nevertheless be called "timeless" or "timelessly true" in the sense that it is a belief which would be true whenever it is made, or is true without reference to the time at which it is made (*cf.* Sec. 18).

But there is a difficulty here.   Consider, for example, my present belief that green is more like yellow than it is like red.[2]   This belief is both true and surely, if any belief is, "timelessly true".   But in what sense is it timelessly true?   It is indeed a belief which would be true whenever it is made ; but this fact (inasmuch as no belief can ever occur, or be "made," but *once*, in a particular mind and at a particular

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[1] McTaggart must, of course, ultimately admit that *something* timeless is involved in the case of timelessly true or false beliefs, if there are any such beliefs at all ; since he himself holds that everything whatsoever really is timeless, and that there simply are no events at all (*cf.* chap. xxxiii.).   In the present chapter, however, he is arguing on the assumption that there *are* events.   "My knowledge that Socrates is wise," for example, is referred to as a "psychical event" ; and, moreover, "the squareness of the table is a fact, in distinction from the belief about it, which is an event in my mind" (Sec. 10).   We must therefore suppose him to be here arguing that the occurrence of such mental events as timelessly true or false beliefs, supposing that there were really any such occurrences, would not *itself* presuppose the reality of anything timeless.

[2] This is not McTaggart's own example of a "timelessly true" belief. He refers instead to the belief that the date of the battle of Waterloo is 1815.   It seems to me doubtful, however, whether this belief, inasmuch as it appears to refer to an event, can really be held to be timelessly true at all.   I therefore prefer to utilise as an example of a timelessly true belief one which certainly has to do not with events at all, but solely with characteristics.   I do not think that McTaggart would deny that this *is* an example of a timelessly true belief.

time) in no way serves to distinguish it from true beliefs of
the non-timeless sort, or indeed from true beliefs of any sort
whatsoever.   And it certainly is not true without reference
to the time at which it is made ; for it cannot be true (or
possess any characteristic at all) except so long as it is real,
and it is real only so long as it is actually occurring.

McTaggart is not unconscious of this difficulty.   For
although he speaks loosely of "beliefs which would be true
whenever they are made" and of beliefs which "are true or
false without reference to the time at which they are made,"
he nevertheless warns us that "we must not say . . . that
such beliefs as these are always true since this would imply
that the same belief can exist at different and separate times,
which is not the case.   A belief is a psychical fact in a man's
mind, and my belief now cannot be the same as your belief
now or as mine next year" (Sec. 18).   And the trouble is, of
course, that despite the fact that one and the same belief
cannot exist at different and separate times, it is nevertheless
certainly the case that different beliefs existing at different
and separate times may yet in *some* sense be correctly de-
scribed as the "same" belief.   For example, if each of these
different beliefs were a belief that green is more like yellow
than it is like red, there is surely some sense in which these
beliefs, different as they are, might none the less be correctly
described as the "same" belief.   What, according to
McTaggart is this sense?

It is by no means easy to say ; for although he very
evidently feels the force of the problem, the language in
which he presents his solution is full of ambiguity.   Some of
his statements concerning the matter seem plainly to re-
cognise and to utilise "propositions," at least in the sense of
"what is asserted" in a belief.   It is suggested that a
number of beliefs which, as psychical occurrences, are
mutually diverse, may nevertheless be spoken of as the
"same" timelessly true or false belief, in the sense that each
of them asserts something which is "not sometimes true and
sometimes false" but "something which is true or false with-
out reference to the time at which it is asserted".   "If a
belief which makes an assertion X corresponds to a fact in
such a way as to be true, then all beliefs which make the
same assertion will be true, whenever they are made, unless
the assertion contains a reference to past, present, or future"
(Sec. 18).

But now the question arises whether the proposition thus
involved must not after all be held to be something *timeless.*
It seems to me that it must.   McTaggart *wishes* to hold that

this proposition, although true without reference to the time at which it is asserted, is nevertheless neither real nor true in independence of beliefs.   But if so, it must come into being when it is asserted by some belief, and must cease to be when it is no longer asserted by any belief; and if this is the case it must be, like the beliefs upon which its reality is dependent, an occurrence, or an event.   Now according to the present theory of timelessly true beliefs one and the same true proposition must in some cases be asserted by a number of different beliefs occurring at different and separate times. But then, on the view that a proposition comes into being when it is asserted and ceases to be when it ceases to be asserted, we should have on our hands one and the same *event* occurring at different and separate times.   And this, as McTaggart himself admits (Sec. 18), cannot be.   But the only alternative is that the proposition involved in a time-lessly true belief should be something which is *not* an event —*i.e.*, something non-temporal or timeless.   And we must therefore conclude that McTaggart has not made good his contention that " it does not require anything timeless to secure that " such beliefs " shall be true whenever they are made ".   Something timeless, and in fact a timelessly true *proposition, is* required.   But, further, if this proposition is really something timeless, and not an event at all, then it can neither come into being nor cease to be, according as a belief asserting it now occurs and now fails to occur.   And if so it will be independent of beliefs.

It seems to me that it must have been because of his sense of the immanence of these uncongenial conclusions that McTaggart was led to use other expressions which suggest another way of dealing with the matter of timelessly true and false beliefs which, by seeming to avoid altogether the assumption of any propositions at all, should not run the risk of having these propositions uncomfortably transform themselves into independent, and therefore, according to McTaggart, non-existent, propositions.   According to this theory, a number of beliefs which, as psychical occurrences, are mutually diverse, may nevertheless be spoken of as the "same" timelessly true or false belief without assuming that each of them asserts one and the same proposition at all. "Two true beliefs are beliefs in the same thing when their truth consists in correspondence with the same fact."   "Two false beliefs are beliefs in the same thing when it is the absence of the same fact which makes both of them false." Or, alternatively, "Two false beliefs are beliefs in the same thing when they both profess to be beliefs correspondent to

the same fact" (Sec. 18, 21). A true belief, accordingly, will be "timelessly true" if all beliefs "in the same thing" are true whenever they are made; and a false belief will be "timelessly false" if all beliefs "in the same thing" are false whenever they are made.[1]

But even though it is thus possible for McTaggart to explain what is meant by timelessly true or false beliefs without for that purpose explicitly referring to any proposition asserted by the beliefs in question, it is *not* possible for him to hold that there *is* nothing "asserted" in these beliefs. To hold this would indeed be equivalent to holding that these are not beliefs at all; for to believe nothing is simply not to believe. And in fact McTaggart tells us distinctly, and quite generally, that "every belief professes to refer to some fact, and more specifically, to correspond to it" (Sec. 20), and that "the assertion of such a correspondence would be a quality of such beliefs" (Sec. 21).[2]

This means, I take it, that *every* belief, whether it be one of several beliefs "in the same thing" or not, asserts a certain proposition, *viz.*, the proposition that it corresponds to a certain fact. What McTaggart really wants to avoid, then, is not the view that beliefs, even though they be beliefs "in the same thing," must in any case each assert *some* proposition, but rather the view that two different beliefs "in the same thing" are two beliefs asserting *one and the same proposition*. And it is evidently to this end that he finds it useful to maintain that what every belief asserts is that it corresponds to some fact. For if this were the case it would seem that no two beliefs could ever assert one and the same proposition; inasmuch as the proposition asserted in each

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[1] It may be noted that McTaggart actually gives no definition at all of what, on this way of looking at the matter, it means *in general* for two beliefs to be beliefs "in the same thing". Yet that there *is* such a meaning is presupposed in his view that for a belief in X to be timelessly true or false means that all beliefs in the same X "will be true or false respectively whenever they are made". It is not difficult, however, to supply the missing definition, in full accordance with McTaggart's theory. Any one of the following would appear to serve : (1) Two beliefs are beliefs in the same thing when their truth would consist in their correspondence to the same fact ; (2) two beliefs are beliefs in the same thing when it would be the absence of the same fact that would make both of them false ; (3) two beliefs are beliefs in the same thing when *either* their truth consists in their correspondence to, *or* their falsity in the absence of, the same fact ; (4) two beliefs are beliefs in the same thing when both profess to be beliefs correspondent to the same fact.

[2] The latter passage has explicit reference only to false beliefs "in the same thing," but I think there can be no doubt that McTaggart would say the same for true beliefs also.

belief, even if both were beliefs "in the same thing," would be about that belief itself. To hold that every belief is thus reflexive is surely somewhat paradoxical; for *prima facie* there *seem* to be beliefs that do not make assertions about themselves. But we shall see that even if it were the case that every belief does assert something about itself McTaggart cannot really account for timelessly true and false beliefs without admitting the reality of timeless, and therefore "independent," propositions. For we must ask precisely what is meant by the view that every belief asserts that it corresponds to some fact.

(1) At first sight this would seem to mean that every belief (say A) asserts the proposition "This psychical state (A) corresponds to X" where X represents a certain supposed fact. But now a part of what is involved in believing such a proposition is the supposition that there is such a fact as X, and to suppose this is to believe a certain proposition which is not simply identical with (although it may be an element in) the proposition "This psychical state (A) corresponds to X". For example, if I believe that John is ill, and if this belief asserts "This belief of mine corresponds to the fact that John is ill," a part of what is here asserted is the proposition "John is ill," or "It is a fact that John is ill". And thus, even if it be true that every belief asserts that it corresponds to some fact, it will nevertheless be true also that every belief asserts as a part of this assertion, a proposition which is *not* in every case about itself. And there is nothing to assure us that *this* part of what is asserted might not be *one and the same* proposition for two *different* beliefs.

But is there anything to assure us that any such proposition ever *is* asserted in common by two different beliefs? It seems to me that there is. Two beliefs "in the same thing" both "*profess*" to be beliefs correspondent to the same fact." Thus, for example, two beliefs that John is ill both profess to be beliefs correspondent to the fact that John is ill. A part of what each asserts is, accordingly, the proposition "John is ill," or "It is a fact that John is ill"; and this certainly *seems* to be one and the same proposition for both beliefs. But if this is not really the case—if this one form of words really expresses for each belief a *different* proposition, then in what, we must ask, do these propositions differ? Each appears to contain identically the same constituents. Can it be held that the constituents of the proposition asserted by the one belief are not literally identical with, but only exactly similar to, the corresponding constituents of the proposition asserted by the other belief? It is McTaggart's

own theory that every proposition is composed wholly of
characteristics.   "An existential judgment, like all other
judgments, asserts something.   And what it asserts, as with
all other judgments, is one or more characteristics. . . . But
what is asserted is always characteristics " (Sec. 641 ; *cf.*
Sec. 654 *sqq.*).   Now if propositions were substances of which
the constituent characteristics were characteristics, there
might be *two* propositions possessing *identical* constituents.
But propositions are clearly not substances.   Again, if it be
held that the characters of substances are themselves par-
ticular rather than universal, it might be suggested that
while each of the characteristics involved in the one proposi-
tion is an instance of the same universal as the corresponding
constituent of the other proposition, each of the constituents
of the one proposition is nevertheless itself a particular char- ·
acteristic characterising one substance, while the correspond-
ing constituent of the other proposition is *another* particular
characteristic characterising *another* substance.   But (*a*)
McTaggart himself holds that the characteristics of sub-
stances are universals—" qualities and relations . . . are
universals, and not particular as substances are " (Sec. 5).
And (*b*) even on the view that the characteristics of substances
are themselves particular it is admitted that there are, in
addition to particular characteristics characterising particular
substances, universal characteristics of which these particular
characteristics are instances.   Now there are propositions
the only constituents of which are precisely such universal
characteristics—such propositions namely as assert simply
relations between universal characteristics, *e.g.*, the proposi-
tion " green is more like yellow than it is like red ".   And
there thus appears to be no way in which it could be main-
tained that the constituents of this part of what is asserted
by one belief that " green is more like yellow than it is like
red " differ, even numerically, from the constituents of the
corresponding part of what is asserted by any other belief
" in the same thing ".   Accordingly it cannot be denied that
there is a proposition asserted in each of these beliefs which
is simply one and the same for both of these beliefs.   And
if this is the case, then, by a course of reasoning now familiar,
it will follow that a timeless and therefore independent pro-
position is here involved.   But two beliefs " that green is
more like yellow than it is like red " are precisely two time-
lessly true beliefs in the same thing.   And it has thus proved
impossible to give an adequate account of such beliefs with-
out admitting something timeless, and in fact without ad-
mitting a timeless, and therefore independent, " proposition ".

(2) We have hitherto proceeded upon the assumption that when McTaggart holds that every belief asserts that it corresponds to some fact what he means is that every belief asserts the proposition that itself as a psychical state corresponds to a certain fact. Even on this interpretation we have seen that he does not succeed in avoiding the admission of propositions of the sort that he is concerned to deny. But when he comes himself to state what he means by saying that every belief asserts that it corresponds to some fact he explains himself quite otherwise, as follows : " this only means that to believe anything means to believe it to be true ". And this clearly implies that every belief asserts *not* that it, as a psychical state, is true ; but rather that what it asserts, *i.e.*, the proposition asserted, is true. And if *this* interpretation is carried out in the case of two timelessly true beliefs " in the same thing " we shall clearly be led quite directly, by a course of reasoning now familiar, to the conclusion that there are not only timeless, and therefore independent propositions, but also that some of these propositions are themselves timelessly *true*.

IV.

It might, however, here be contended that the foregoing has misapprehended the true intention of McTaggart's polemic. In denying that there are propositions " independent" of belief he did not really intend, it might perhaps be said, to deny that there are propositions which neither begin to be when first asserted by some belief, nor cease to be when no longer asserted by any belief (although if he did *not* intend to deny this it is difficult to see why he should so strenuously object to " timeless " propositions), but only that there are propositions that never have been, are not now being, and are never going to be asserted in any belief whatsoever. It is only propositions that are in *this* sense independent of beliefs, it might be thought, that McTaggart was really concerned to deny. In support of this interpretation it might be pointed out that McTaggart, in denying the reality of propositions that are independent of beliefs, frequently puts his position in such terms as the following : " there is, I maintain, no reason to hold that the truth of beliefs involves their *correspondence* with true propositions " (Sec. 14); " It does not follow that, if there are beliefs which would be true whenever they are made, they must *correspond* to timeless propositions, or to anything timeless " (Sec. 18); " thus we can account for the falsity of false beliefs without basing it on their *correspondence* to false

propositions " (Sec. 22 ; *cf.* also Sec. 23, italics mine through-
out), etc.   And it might be argued that McTaggart is here
clearly not concerned to deny that there *are* true and false
propositions, or even that there are timelessly true and false,
and therefore, as we have seen, in a sense "independent,"
propositions ;   provided only it be allowed that every such
proposition either has been, is now being, or is going to be
asserted in some actual belief, so that all such propositions
are "real as constituents of beliefs, and not otherwise ".   He
merely wants to deny, it might be held, that there are, *in
addition* to propositions of this sort, independent propositions
of *another* sort which are such as never to get themselves
asserted in any belief whatsoever, and to which, therefore, no
belief can ever do more than "correspond ".   And in fact it
seems to be against propositions of this sort that he is argu-
ing in the section where he disputes the view "that many
things are true which, in all probability, are never known or
assumed " (Sec. 15).

There can be no doubt, I think, that McTaggart *was* con-
cerned to deny that there are any propositions of this sort.
But it seems to me very difficult to interpret his polemic as
a whole on the assumption that this was *all* that he intended
to deny.   And even if this was, in fact, all that he really
intended to deny, it seems to me quite clear that he has no
right to make the denial.   For (1) McTaggart has at any rate
produced no positive ground whatever for denying that there
are propositions of this sort ; for the argument of the section
in which he professes to give " a more positive ground for re-
jecting propositions—that there is no place left for them "
(Sec. 37 ; *cf.* Sec. 38) will I think be seen to have been
altogether undermined by considerations presented in the
earlier sections of this paper.   Moreover (2) it is very difficult
to understand how McTaggart can have supposed, as he
clearly did, that propositions that are independent of beliefs
in *any* sense whatever, even in this most extreme sense, would
if they were real at all, have to be non-existent ; and should
have felt constrained, on this ground, to reject them.   For
(*a*) it is by no means evident that the mere fact (if it were
a fact) that some, or all, propositions are independent of beliefs
would constitute any sufficient reason for declaring that such
propositions must be non-existent.   Indeed it would seem
that in order to be non-existent propositions would have to
be independent not merely of *beliefs* but of *any* existent
thing whatsoever, "since it is impossible that a constituent of
an existent thing should not itself exist " (Sec. 23).   And from
the mere fact that a proposition is real independently of beliefs

it surely does not follow that it is independent of *every* existent thing whatsoever.   Moreover (*b*) on McTaggart's own view propositions are composed of characteristics ; and there are no non-existent characteristics (Sec. 31, 34).   It follows that propositions, no matter how independent they might be from beliefs, could never in any case be non-existent.   Again (*c*) McTaggart remarks (Sec. 5) that "even if it should be the case that qualities and relations were both existent, as qualities and relations of existent things, and non-existent, in their general aspects, I do not think that this would be an objection to our view.   Qualities and relations are very different from substances, and the fact that a substance cannot be both existent and non-existent does not prove that qualities and relations—which are universal, and not particular as substances are—could not be existent in one aspect, and non-existent in another."   But if so much latitude is to be allowed in the case of qualities and relations it is difficult to see why it should be denied in the case of propositions.   For these always consist, as we have seen, of one or more characteristics ; and these, too, must therefore be "very different from substances".   And there thus seems to be no very obvious reason why they should not be allowed to be existent as constituents of beliefs, and non-existent in their "independent" aspects ; or existent in virtue of the fact that their constituent characteristics are existent as qualities and relations of existent things ; and non-existent in virtue of the fact that their constituent characteristics are non-existent in their general aspects.

Finally (3) if propositions always consist simply of one or more characteristics, and if it be admitted that there are characteristics or combinations of characteristics which neither have been, or are now being, or are ever going to be asserted in any belief whatsoever (and I do not think that even McTaggart would be prepared to deny that this is the case), then it will seem to follow directly that there are propositions which are, in the fullest sense of the term, "independent" of beliefs.

IV.—COOK WILSON'S VIEW OF THE ORIGIN OF "JUDGMENT".

By Richard Robinson.

The aim of this article is to remove one of the puzzles raised by my previous one.[1] I there said that Cook Wilson holds the notion of "judgment" to be quite mistaken. But now this notion is extremely widespread, and might even be said to be the fundamental notion in the philosophy of several famous thinkers, such as Bradley. Hence the question arises, How can such a complete mistake (as "judgment" is according to Cook Wilson) have imposed so often on so many competent enquirers? The mere fact of the un-challenged and continual recurrence of the word "judgment" in so many highly thought of philosophical books, seems powerfully to suggest that Cook Wilson must be wrong. But if we are convinced that he is right, then we must try to make intelligible to ourselves the existence of such a vast and serious error. And that is here the general nature of the problem. But the discussion is here limited by reference to Cook Wilson, so that the question we have to answer is this: What is, or would have been, Cook Wilson's method of making intelligible the existence of such a vast and serious error?

Practically speaking, Cook Wilson never addresses himself to this undertaking. He is frequently concerned to show that the notion of "judgment" is false, but never to show how it arises and why it has such a hold. This makes our enquiry more difficult. We have to find out what view of the origin of the notion is implied by his accounts of its falsity, and involved by all of his views. The most important pages are 84-88 and 295-299 in *Statement and Inference.*

We must begin by looking away from Cook Wilson, and making a point which he never makes, but one which he would certainly have agreed to. This is the point that the notion of 'judgment' is not a reasoned conclusion but an assumption. We fall into the habit of talking about 'judgments' unconsciously, and not because we have been driven

by our own or other people's arguments to believe in their existence. This is true not only of the beginner in philosophy at Oxford, who picks up the word in mere imitation, but also of advanced and self-conscious students of the nature of the supposed corresponding thing. Bradley's *Logic*, half of which is devoted to the study of 'judgment,' opens with a chapter on the definition of it, a chapter intended to fix the essential nature of all 'judgments' as such. But from the beginning of this chapter to its end, and throughout the book, the *existence* of 'judgment' is assumed. And Bradley asks himself, not Does 'judgment' exist? but What *is* judgment? In this sense the notion of 'judgment' is an assumption.

What precisely is an assumption? The word has more than one sense, and in particular there is a difference between a conscious and an unconscious assumption. When the geometrician says 'Let us assume that these two lines eventually meet at a point X,' he knows what he is doing; and is well aware, if he is conducting a *reductio ad absurdum* proof, that as a matter of fact the two lines never meet. The notion of 'judgment' is not this kind of assumption. It is the unconscious sort of assumption, the sort of assumption that is an error. Is an assumption, in this—the commonest sense of the word—a kind of thinking, or is it something other than thinking? The answer, though surprising at first, recommends itself on reflexion. Assuming is not thinking at all. It is *behaving*. To assume that A is B is to behave *as if* you thought that A was B, when actually it has never even occurred to you to ask whether A is B or not. Assuming is not 'thinking-that-A-is-B,' but 'not-thinking-whether-A-is-B-or-not,' and yet behaving as if you had decided that it was. If, assuming that the man in front of me is my friend, I slap him on the back, and he turns out to be a stranger; then I have not really *thought* that the man was my friend, but failing to think at all, I have behaved in a way which would only have been sensible if I really had considered the matter, and decided that I knew that the man was my friend. Thus, in order that we may speak of an assumption, two conditions are necessary. First, the positive condition must be fulfilled, that I behave in a way which implies a certain piece of knowledge or a certain opinion on my part. Second, the negative condition must be fulfilled, that I have no such knowledge or opinion and am not conscious of its absence.

The statement that assuming is not thinking but behaving, may seem to be upset by the reminder that thinking itself

is a way of behaving. And it is true that the behaving, in
which the positive part of the assumption consists, may be
that kind of behaving which is thinking, say for example
the opining that C is D.   But if the act of opining that C
is D is to be called an assumption, then it must be the case
that it would only be rational for one to hold this opinion,
if he already knew or opined something *else*, say that A is B,
whereas actually he has never asked himself whether A is B.
And thus the assumption that A is B is never any kind of
thinking that A is B, though it may be the thinking some-
thing else.

This account of the nature of an assumption is not ex-
plicitly set forth by Cook Wilson, nor does he ever ask in so
many words what an assumption may be.   But the substance
of the account is exactly what he says about error on pages
109-113.

The notion of ' judgment ' then is an assumption.   That
is to say, we write and think as if we had decided that
' judgments ' exist, when all the time it has never occurred
to us to ask whether they do or not.   This conclusion throws
light on the nature of our problem.   That problem is, how
can we, on Cook Wilson's view, make intelligible to ourselves
the existence of such a vast and serious error as ' judgment ' ?
It is now clear that we cannot do so by adducing any argu-
ments or philosophical views which are put forward by those
who talk of ' judgments '.   Since these people have not
faced the question ' Do ' judgments ' exist ? ' their habit of
talking about ' judgments ' cannot be the result of a train of
thought which led them to the conclusion that ' judgments '
exist.   You cannot by arguing reach a state which consists
precisely in failing to argue.   The origin of the notion does
not lie in any views explicitly held by those who entertain
the notion.

On the contrary, an explanation of the existence of an
assumption can only be descriptive.   It must consist in
describing fully the two parts of which the assumption
consists ((1) the fact that the man has not had certain
thoughts, (2) the fact that he behaves in certain ways), and
in mentioning any historical facts which may have helped to
bring these facts about.   It must give mere causes, as op-
posed to reasons ; for an assumption, not being a rational
act, cannot have reasons, but only psychological and histori-
cal causes.   To take the case of slapping a stranger on the
back.   In order to explain to the stranger how I came to
assume that he was my friend, I shall mention circumstances,
such as that he resembles my friend in build and clothing.

This will not be an explanation in the sense of showing that I was *bound* to fall into the error into which I fell. Obviously it is *impossible* to explain error in that sense, for the simple reason that we are *not* bound to err. But it will be an explanation in the sense that it will, as we may say, make my false assumption seem 'natural' and 'excusable'. And such an explanation is satisfying, and all that in the nature of the case it is rational to demand. It is such an explanation that we have to give of the assumption of 'judgment'. We have, by describing the assumption carefully, and picking out any attendant circumstances that may seem important, to make the assumption appear natural and excusable and such as anybody might fall into. If we can make it appear in this light, in spite of its (according to Cook Wilson) complete fallaciousness, then we have removed the puzzle described in the first paragraph of this article.

The above account of what sort of thing must be an explanation of the existence of the erroneous notion of 'judgment' is nowhere to be found in Cook Wilson. On the contrary, he seems, in so far as he touches on this matter, to be hinting that those who talk of 'judgments' hold a certain explicit false view, out of which the notion of 'judgment' follows. But in this tendency he is inconsistent with his views on the whole. And the tendency owes its existence solely to the fact that he never treats the question of the origin of 'judgment' for its own sake, but only as a means to the demonstration of its falsity. I shall deal with this tendency later on, by means of an imaginary objection to my interpretation. Here it will suffice to say that if Cook Wilson had explicitly addressed himself to the problem I am treating, instead of only touching it by the bye, he would undoubtedly have come to that conclusion about the nature of the problem which has just been put forward. For it is the only conclusion which agrees with his views as a whole.

We are now in a position to make the existence of the false assumption of 'judgment' understandable to ourselves by describing its exact nature and the circumstances which make it natural. The outstanding circumstance which inclines us to fall into this error is, says Cook Wilson, the fact of *statement*.[1] We are all well aware of the existence of statement. And we know that statement has a close connexion with thought, which we often describe by the phrase 'statements express thoughts'. This much we all know. At the same time most of us have never made a special

[1] Pp. 84-89 and 296-299 *passim*.

study of the nature of statement, nor considered what ex-
actly is the relation of 'expression' between statement and
thought, and what its limits may be.   And it is this super-
ficial knowledge of statement and its relation to thought,
which is the soil in which 'judgment' germinates.   To see
how that is so, we must proceed to the description of the as-
sumption of 'judgment' itself.

We saw that the assumption of 'judgment' consists in
behaving as if you had decided that 'judgment' exists when
you have not considered the question.   Now in order to de-
scribe this phenomenon more fully, we have to set out the
whole meaning of the phrase 'that judgment exists'.   What
is it precisely that we seem to presuppose when we talk of
'judgment'?   In the first place, we are talking as if we had
decided 'that to every imaginable separate statement there
could correspond a separate and independent thought, of
which that statement and no other would be the full and
proper expression'.   We are assuming a perfect parallelism
between statement and thought, and taking it for granted
that the mere possibility of inventing an intelligible state-
ment is a guarantee of the possibility of the existence of a
precisely corresponding thought.   Our behaviour consists in
inventing any statement we like, say 'The sea-serpent exists,'
and then proceeding straight away to discuss the nature *not*
of the *statement* that the sea-serpent exists, but of the
'*judgment*' that the sea-serpent exists.   But how do we
know that there can be such a thought as this?   We do not
know.   The question has never entered our heads.   The
fact that there can be such a *statement* as this, is enough for
us.   But obviously such procedure would only be justifiable
if we had decided that the possibility of inventing a state-
ment is a guarantee of the possibility of thinking a thought
of which that statement and that alone would be the correct
expression.   This is what Cook Wilson means when he says
modern logicians make the statement represent the thought.[1]

In the second place, when we talk of 'judgment' we are
behaving as if we had decided that all the thoughts corre-
sponding to all imaginable statements belong to one and the
same kind or genus.   For in every case, when we have in-
vented a statement and proceeded to discuss the thought
corresponding to it, we call this thought by the same name—
'judgment'.   And we do not call all such thoughts 'judg-
ments' merely in virtue of the fact that they are all thoughts

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[1] P. 298.   He tends to mean something more besides, something which
does not fit with his theory as a whole and is therefore not mentioned
here.   It will be discussed later and shown not to be his real view.

corresponding to statements (as opposed to *e.g.*, thoughts corresponding to questions). On the contrary we assume that they have an identity in their own natures, apart from the external identity which they have in all corresponding to statements. We assume 'a common and essential element in the mental attitude'.[1] Thus in inventing any conceivable statement that A is B, and proceeding straightway to talk of 'the judgment that A is B,' we are—to sum up—behaving as if we had decided " that *to every imaginable statement there could correspond a separate and independent thought, of which that statement and that alone would be the full and proper expression; and in every case this thought would be of a certain identical kind, which we designate by the term 'judgment'* ". Such is the full meaning of the assumption ' that judgment exists '.

On Cook Wilson's view this assumption is false in both its parts. To take the last-mentioned part first, the thoughts corresponding to statements are *not* always of the same kind. The man who says ' Two and two are four ' is knowing that two and two are four. But the man who says ' It will rain to-morrow ' is only believing that it will rain to-morrow. And knowledge and belief are different in kind. Statement may express different kinds of thinking. ' What is known, perceived, supposed, or believed may be expressed in an identical verbal form. The man who knows that A is B, whether as perceiving this or not, whether as inferring it or not, and the man who holds the opinion or belief that A is B, may equally use the form of statement that A is B, and under ordinary circumstances do so use it.' [2]

The other part of the assumption is also false. According to Cook Wilson it is not true that to each different statement there corresponds a different thought. In certain cases there is only one thought to correspond to two different statements. This occurs when one of the statements is the statement of the conclusion of an inference. Suppose we infer from A's being B and B's being C that A is C. Now if we make the statement ' A is C,' what thought corresponds to it ? The opinion that A is C ? No, for we know that A is C. Then the knowledge that A is C ? No again, for the knowledge that A is C is something that cannot be had by itself. The fact that A is C is *ex hypothesi* something that has to be learnt by inference. Hence we can only know that A is C as an element in the knowing that A's being B and B's being C necessitate A's being C. But this knowing might properly

[1] P. 87.　　　　　　　　[2] P. 87.

be expressed by the statement 'A's being B and B's being C necessitate A's being C'. Hence the thought which corresponds to the statement 'A is C' is the same thought as that which corresponds to the different statement, 'A's being B and B's being C necessitate A's being C'.[1] Hence it is not true that to every imaginable separate statement there could correspond a separate thought.

Thus the assumption of judgment depends essentially on the fact of *statement*. Whenever we talk of 'judgments' we are speaking as if the possibility of constructing a statement were a guarantee of the possibility of thinking a thought of which the statement would be the correct expression, and as if all the possible thoughts which all possible statements would express all belonged to one species—'judgment'. The unity which really belongs to all the 'judgments' which we speak of is nothing more than this, that every judgment is *what we imagine to be* the thought corresponding to some particular statement to which we are attending at the moment. When we take, as we should say, a particular 'judgment' (*e.g.*, 'The sea-serpent exists') and puzzle about its nature (*e.g.*, when we ask, under the influence of Bradley, whether the true subject of this existential 'judgment' is the ultimate reality or not), we are in fact puzzling about the nature of the thought which, as we assume, corresponds to this imagined statement 'The sea-serpent exists'. But we are hampered in our inquiry, and doomed to fail, by the fact that it has not occurred to us to ask the three following questions : (1) Does this statement really express any possible thought at all? (2) Even if it does, would not that thought be *better* expressed by another, different statement? (3) *Has* this thought (if it exists) really got an identical quality, 'judgment,' in common with the thoughts corresponding to all other statements, and if so what is that quality?

The fact that the assumption of 'judgment' is intimately connected with statement can be seen in the history of logic. For historically speaking the word 'judgment' is a *substitute* for the word 'proposition' (which means the same as 'statement'). The part of logic which is now said to be concerned with 'judgments' was formerly said to be concerned with propositions. And yet it is considered to be in essence concerned with the same subject as it was before. How is this possible? Only because it is assumed that there is a perfect

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[1] The view maintained in this paragraph depends on Cook Wilson's whole view of inference, which I cannot set out here. Cook Wilson deals with inference on pp. 412-490, and applies his results to the present case on pp. 84-87.

parallelism between propositions and thoughts, and that what was really studied by the old logicians under the name of proposition was the thought to which the proposition was a perfect guide.[1]

Since the only unity which really belongs to all 'judgments' is that each one of them is the thought which we imagine to correspond to some *statement* that is before us at the moment, it follows that if a man sets himself to make a thorough study of the thing 'judgment' (and does not realise its non-existence), he is driven more and more to describe it in terms of the only real thing about it—statement. The more tenacious and praiseworthy his attempt is, the more will his account of 'judgment' resemble an account of statement. And hence we find the at first sight astonishing fact that in the works of the mature Bradley 'judgment' is often statement in everything but name. It is not the beginner, but the advanced student of the notion, who is driven into the seemingly elementary mistake of confusing thinking with speaking under 'judgment'. Here are two examples of this confusion from *Essays in Truth and Reality*.

I propose to show (A) that one of Bradley's arguments for the relativity of truth depends on this confusion : (B) that in certain passages the confusion is such that the sense is actually improved by substituting 'statement' wherever the author writes 'judgment'. (A) Bradley supports his doctrine of the relativity of truth and error by two arguments. The first of these is roughly the argument that since we do not know the whole conditions of anything we do not know anything.[2] With this I am not concerned. The second argument may be summed up in the statement that ' the opposite of any truth is also true '. For instance, although it is true that ' Cæsar crossed the Rubicon,' yet it is also true that ' Cæsar did not cross the Rubicon '. This latter truth may be true of other worlds different from our own, and in any case it is true of other Cæsars, distinct from Julius the Dictator. " ' Cæsar crossed the Rubicon,' we say, ' or not ' ; but this ' either-or ' is only true if you are confined to a single world of events. If there are various worlds, it may also be true that Cæsar never saw the Rubicon nor indeed existed at all." [3] Now the fact which Bradley here appeals to is this, that two statements, which, if taken in the same sense, are contradictory, and therefore not both true, may yet be actually used from time to time in such

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[1] P. 84.　　　　　　[2] *T. and R.*, pp. 252-259.
[3] *T. and R.*, pp. 261-262, *cf.* pp. 264-265.

ways that they are both true. For instance, statements of
the forms ‘ The earth goes round the sun ’ and ‘ The sun
goes round the earth ’ would not both be true if they were
both meant in the same sense. But yet they might both be
true if the first was intended to refer to the reality and the
second to refer to the appearance. ‘ Cæsar crossed the
Rubicon ’ and ‘ Cæsar never crossed the Rubicon ’ may both
be true when the persons who make these remarks mean
different Cæsars. Thus the doctrine that ‘ the opposite of
any truth is also true,’ is this, that any intelligible form of
statement whatsoever may become, on some person’s lips at
some particular time, the vehicle by which that particular
person communicates a fact. The mere form of statement
is ambiguous. It is only when this form is actually used in
particular circumstances, that we can say what in this case
it means and whether it is true. Here then what Bradley
appeals to is a fact about the forms of language which are
used in statement, not a fact about thought. He denies that
we ever really know anything, on the ground that all state-
ments are, when taken without reference to the circumstances
of their utterance, ambiguous. This alleged ground is irrele-
vant to the conclusion supposed to be drawn from it. The
reason why Bradley does not see the irrelevance, is that he
does not see that he is talking about statement. The
‘ truths ’ of which he speaks are really true statements, and
this is the proper meaning of the phrase ‘ a truth ’. But
Bradley thinks of them as being not statements but thoughts.

(B) I turn now to the second point, the existence of pas-
sages in Bradley where the sense is actually improved by
substituting ‘ statement ’ for ‘ judgment ’ wherever the latter
occurs. I will give two examples. The first passage is this.
‘ The assertion is made of the Universe. For the ⟨state-
ment⟩ affirms reality, and on my view to affirm reality is to
predicate of the one Real. This one Reality I take to be a
whole immanent in all finite subjects, immanent in such a
way that nothing finite can be real by itself. Thus, with
every finite subject, the content of that subject is and passes
beyond itself. Hence every assertion made of the subject
implies that which is not contained in it. The ⟨statement⟩
in other words is made under a condition which is not speci-
fied and is not known. The ⟨statement⟩ as it stands can
therefore . . . be both affirmed and denied. It remains
conditional and relative only.’ [1] The second passage, a few
lines lower, is this. ‘ Now you may object that in the

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[1] *T. and R.*, p. 254.

⟨statement⟩ the condition, though it may not be stated, is understood. It is left out (you may say) merely for the sake of convenience. But if so the ⟨statement⟩ as it stands is I presume admitted to be imperfect. And when you urge that the conditions are understood, I reply that if so they can be stated. But . . . I maintain that you are really unable to state the conditions. You cannot in the end specify them, and you cannot show how far, being completely specified, they would modify your subject and your ⟨state-ment⟩.' [1] In these passages the substitution of 'statement' for 'judgment' reveals the fact that Bradley is really think-ing of statement while he supposes himself to be thinking of thought. The words 'affirm, assert, deny, state,' which are frequent in these passages, are words which describe speak-ing and not thinking.

We have now seen the nature of the notion of 'judgment,' as Cook Wilson implies it to be. And with this conclusion we have gained that insight which it is the object of this article to gain. We see how an error so complete as 'judg-ment' can yet be so common. But unfortunately I cannot end here. On this matter Cook Wilson's text is so difficult, that many readers of it are likely to feel that I have inter-preted him wrongly. I propose therefore to consider three objections which might be brought against my account.

The first objection might run as follows. 'Cook Wilson does *not* consider 'judgment' to be an assumption in the sense which you have given to that word. On the contrary, he considers the notion of 'judgment' to arise out of a definite self-conscious view which is actually held by those who talk of 'judgments'. And this view is the view that *statements mean thoughts*. That he attributes this view to the logicians who talk of 'judgment' is clear from the way in which he emphatically combats it in passages concerned with 'judgment'. Consider the following examples: (1) 'The form ⟨A is B⟩ merely states the nature of what we know to be, or think to be, existent, with complete abstraction of the fact that it is for us matter of knowledge, conjecture, or belief. So far from being an expression of our mental atti-tude, it says nothing about it whatever. *A is B* means that a certain object has a certain nature or quality; it doesn't matter whether the statement is true or not, that is what it means.' [2] (2) 'What the verbal form signifies . . . is the nature of the object only, with no reference to our thought about it.' [3] (3) ' Since the sentence or statement describes the

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[1] *T. and R.*, p. 255.   [2] P. 87.   [3] P. 88.

nature of objects and not any attitude of ours to the objects described, in the way of apprehension or opinion, its meaning is
wholly objective, in the sense we have already given to objective.   That is, it is about something apprehended, in the case of
knowledge, for instance, and not about our apprehension of
it.   The general forms, then, in the language of the sentence
can only mean forms of the objects about which we think;
they are forms of being, not of our thought about being, and
so far it is vain to examine the forms of speech in order to
find forms of thought.   For even if it should be contended
by any chance that they are really forms of thought, though
mistaken for forms of things, or objects of thought, we must
reply that that doesn't in the least alter the *meaning* of these
verbal forms; what these forms are intended to do is to
express characteristics of realities or objects, not distinctions
of thought.   Even for the extremist idealistic view there is
an object, whether called thought or not, to be distinguished
always from the apprehension of it.   And it is to the forms
of this object as such, and not to the forms of our subjective
apprehension of it, that the grammatical forms correspond.'[1]
(4) 'The proper function of the verbal form called statement is
to describe something known to be true ; that is to say it is
the verbal expression which properly corresponds to knowledge and to knowledge only.   The meaning of the statement
is not the thought which gives rise to it, it does not mean
our thinking as such, nor does it describe anything subjective
whatever.   It describes the reality which is apprehended as
a matter of knowledge, the object thought about, and it may
be said to mean what we know of this object.'[2]

'The doctrine about statement which these passages convey,' the objection would continue, 'appears to be as follows.
Statement is not by nature concerned with the speaker's
thoughts.   A man's statements are not as such the statements of his thoughts.   A man *may* make a statement about
his own thoughts—he may say ' I wonder if it will be fine '
—but most statements are about something other than the
speaker's thoughts.   If we ask, What is statement as such
about, what does statement as such mean? the answer must
be, Anything whatever.   Anything can be stated; and the
question, What does statement as such mean? implies a false
theory, for it implies that the range of that which can be
meant by statements is restricted, which is not true.   The
thought which gives rise to a statement, and the meaning of
that statement, are different things.   For instance a man
may have a thought consisting in the apprehension that two

and two make four. This thought may give rise to the statement 'two and two make four'. What this statement means is not the man's apprehension that two and two make four. To mean that a different statement would have been required, the statement 'I apprehend that two and two make four'. The statement 'two and two make four' does not mean 'I apprehend that two and two make four': it means what it says'.

'In putting forward this doctrine in connexion with his criticism of 'judgment',—the objection would continue— 'Cook Wilson means that the logicians who speak of 'judgment' hold that statements mean thoughts. And his view clearly is that it is precisely this belief which leads them to speak of 'judgment'. For if statements mean thoughts, then we have only to look at the meaning of a statement to be in possession of a particular thought. And whereas the detailed nature of this thought will vary with variations of the statement which means it, the general nature of all the thoughts which all possible statements mean will be always the same, in virtue of the identity which all the sentences that mean them have in being all statements (as opposed to questions, for example). That general form of speech which consists in statement, will mean one general form of thought, to wit 'judgment'. And the detail of individual statements will mean the detail of individual 'judgments'. It is by arguing in this way from the premiss that statements mean thoughts, that the notion of 'judgment' is obtained, according to Cook Wilson. And accordingly we find the following passages, in which, without saying it in so many words, he clearly attributes this premiss to modern logicians. (1) 'It must be observed that Aristotle here makes the same mistake as the logicians who use judgment and conception in the sense we have been discussing. He takes the sentence to represent a subjective state (states of the soul), namely the thought which is either true or false, just as the moderns make it represent judgment. Similarly he makes the verbal elements of the sentence taken singly represent the thought without synthesis and division, or without speaking truth or untruth, just as in the modern theory the words of the sentence are made to represent conceptions. The nature of this mistake has been already pointed out. The sentence which is a statement clearly describes the nature of a thing or object, and the verbal elements of the statement do not represent elements in our thought but elements in the thing or object.'[1] In this passage the words 'represent' and

[1] P. 298.

'describe' must be equivalent to 'mean'. (2) 'It is often said that the verbal expression is a symbol or representation of thought, and thought again is somehow made to represent things; but it is not an adequate account, even of the verbal form, to say that it represents thoughts; the value of the words oftenest lies in their meaning things.' [1] (3) 'If this common form ⟨of statement⟩ were an expression of the mental attitude of the person using it, it would be reasonable to expect to find a common and essential element in the mental attitude corresponding to the verbal form.' [2] Here the word 'expression' is obviously meant to describe some *false* theory of the relation between statement and thought, and this can only be the theory that statements *mean* thoughts.'

With regard to this objection the first thing to notice is that to a certain extent it is correct. No book on philosophy is perfectly unified, and *Statement and Inference* is rather less so than most. It contains tendencies which, if developed, would be found to be contradictory. There *is* in it the tendency to explain the notion of 'judgment' as due to the presence of the belief that statements mean thoughts. But on the other hand the objection is in the long run false, because this tendency is contrary to the *main* tendency of Cook Wilson's thought. (1) The main reason for rejecting it lies simply in the different account which I have given. That account of the nature of 'judgment' both fits Cook Wilson's utterances better on the whole, and is in itself more likely. (2) As already remarked, Cook Wilson is always really concerned with pointing out the falsity of 'judgment,' and never addresses himself to the problem of its origin for its own sake. And he occasionally slips into representing 'judgment' as the conclusion from a false premiss, owing to his effort to show up its falsity. (3) If he had considered the problem for its own sake, his view must have been the one I have given. For it is patent that the people who talk of 'judgment' do *not* deduce the existence of 'judgment' from some prior view, but *begin* from the assumption of 'judgment'. And his view of error being what it was, he would, as already said, have described an assumption as it has been described above. (4) The logicians who speak of 'judgment' clearly do not hold the view that statements mean thoughts. For the most part they are not concerned to discuss the relation of statement and thought at all. They merely state —what is true in an obvious sense—that the statement expresses the thought, and leave it at that. This fact could not have escaped Cook Wilson's notice.

[1] P. 274.   [2] P. 87.

For these reasons the objection falls, and we can turn to the second, which is closely connected with it. It might be said—' It must indeed be allowed that *Statement and Inference* on the whole implies that the notion of 'judgment' is not a conclusion from some erroneous theory, but an assumption in the sense described. But a mistake has been made in the account of what particular assumption 'judgment' is. It was said to be behaving as if there existed a precise parallelism between statement and thought, and as if the thought corresponding to statement were always of the same kind. But what Cook Wilson really means is that the assumption of 'judgment' consists in behaving as if you had decided that statements mean thoughts. And that this is his meaning the passages quoted in the former objection are a strong indication.'

The reasons which have prevented me from interpreting Cook Wilson in the simple way suggested here are as follows: (1) As in the case of the previous objection, the given account of 'judgment' seems both more nearly what Cook Wilson's views really involve, and in itself more likely. (2) If the assumption that A is B consists in behaving as if you had decided that A is B when you have not considered the question, we must not in describing ' A is B ' in the case of 'judgment' make it more than the actual behaviour of those who talk about 'judgments' warrants. But to describe ' A is B ' as being in this case ' statements mean thoughts ' *is* too much. The exponents of 'judgment' do not go so far as to talk as if they had decided that statements mean thoughts. They imply indeed a perfect correspondence between statement and thought. But they do not imply any particular cause of this correspondence, such as the fact that statements meant thoughts would be if it were a fact. I do not think this observation would have escaped Cook Wilson. (3) Cook Wilson never unambiguously ascribes to anyone the view or the assumption that statements mean thoughts. And it can be seen in his work that while his train of thought sometimes leads him to a point where the reader expects him to impute this view to modern logicians, he always hesitates at the last moment, and substitutes instead of the word 'means' some vague and unsatisfactory word like ' represents '. This is very clear in the passages quoted in the first objection. In the first group Cook Wilson is repeatedly urging—and that in reference to ' judgment '—that statement does *not* mean thought. We expect him to go on to say that modern logicians think it does. But in all the positive passages—which form the second group there quoted—the word

'means' is always replaced by something ambiguous. And there is no passage in *Statement and Inference* where the view or the assumption that statements mean thoughts is attributed to anybody. He clearly felt such an attribution would be wrong. (4) The last point raises the question, But if he felt that such an attribution would be wrong, how is it that his exposition often leads to places where the reader expects him to make it, and where he himself seems to want to make it for consistency's sake, though he refrains from doing so for truth's sake? The immediate cause of this situation is the fact that he so constantly reiterates, in connexion with 'judgment,' that statements do *not* mean thoughts. Why then does he do this? The answer is that it is his way of opening our eyes to the revolutionary possibility that the notion of 'judgment' may be an error. He says in effect: 'If statements meant thoughts, it would be reasonable to believe in such a thing as 'judgment'. But you know they do not mean thoughts, so what reason have you for speaking of 'judgment'?' But since he fails clearly to separate the questions of 'judgment's' falsity and of its origin, and since, while he is chiefly concerned with its falsity, the question of its origin is always recurring as an aid to the demonstration of its falsity, for these reasons the thesis that statements do not mean thoughts, which was really meant to reveal the falsity of the notion, comes sometimes to be vaguely thought of as also revealing its origin; that is, Cook Wilson sometimes tends to think that the notion of 'judgment' is a deduction from the theory that statements mean thoughts. But the cause of this erroneous tendency is the failure to separate clearly the two questions about 'judgment,' and the real purpose of the doctrine that statements do not mean thoughts is to illustrate not the origin but the falsity of the notion. (5) There is a passage in which Cook Wilson seems to recognise his own tendency to ascribe 'judgment' to the assumption that statements mean thoughts, and to acknowledge the falsity of that tendency, and to say that 'judgment' is really nothing more than the assumption of a perfect parallelism between statement and thought, without any theory of why such a parallelism should exist. This passage is as follows: 'In the modern substitution of terms of thought for terms of language, judgment tends to be represented as a synthesis of conceptions. The verbal form is considered to be the expression of a subjective act of thought called judgment, and the single words of the sentence, or sometimes complex groups of them, are taken to express the several conceptions of

which the judgment is said to be a synthesis, with no great clearness perhaps as to whether these words or groups of words, mean or denote the conceptions or, rather, correspond to them in some way without meaning them.' [1]

I come now to the last objection. It might be said : ' The given interpretation of Cook Wilson's view of the origin of 'judgment' is totally wrong. And it is extraordinary that it should ever have been put forward, for Cook Wilson's real view is set out perfectly plainly by him in the place where he chiefly deals with 'judgment'. This view is that the notion of 'judgment' arises out of a false view of inference. Cook Wilson says that logic begins in the study of inference. But we soon notice that inference presupposes apprehensions which are not inferences ; *i.e.*, the ultimate premisses of any chain of inference must be facts which we somehow manage to know without having inferred them. To such apprehensions we give the name ' judgments,' and so far this is harmless. But here comes in the false view of inference. We come to think that our knowledge of the conclusion of an inference is somehow separate from the act of inferring itself. We imagine that we can know the conclusion apart from performing the inference. We imagine that we can ' possess,' as we might say, the conclusion, when the act of inferring it is past and forgotten. And therefore the knowledge of the conclusion seems to us to be another case of an apprehension which is not inference, just like the knowledge of the premisses. Hence we call this knowledge also 'judgment'. And thus we have the notion of 'judgment'. And it depends on a false view of inference, for in reality our knowledge of the conclusion is nothing other than the actual inferring act itself (as Cook Wilson in his chapters on inference asserts at length).'

This objection gives a perfectly true interpretation of what Cook Wilson says on pages 84-86. But this is not his real view. In the first place he never mentions it anywhere else. These three pages are unique in their teaching. In the second place the doctrine of these pages really presupposes the truth of the alternative doctrine which has been attributed to Cook Wilson, and thus refutes itself. That comes about in the following way. The false view of inference, out of which the notion of 'judgment' is said in these pages to arise, is the view that when we have reached by inference a conclusion we thereafter are capable of knowing that conclusion by itself, and our knowing of it does not consist in

re-inferring it but is an act of its own.   Now why should
anybody form such a view of inference?   Cook Wilson him-
self points out the reason in these pages.   He says it is 'the
form of the conclusion, not containing the grounds on which
we based it'.   That is to say, the belief that our knowledge
of the conclusion is something separate from the act of infer-
ring it arises out of the fact that we habitually state the con-
clusion by itself, without stating the premisses, and without
putting a 'therefore' in front of the conclusion.   But now
why should this habit—the habit of stating facts which we
have learnt by inference without reference to the fact that
they are conclusions—result in the false theory that the con-
clusion can be known by itself?   Obviously because we
assume that what can be stated separately can be thought
separately—in other words, because we assume the perfect
parallelism between statement and thought which has been
said to be Cook Wilson's view of the nature of the assump-
tion of 'judgment'.   So that it is not the false view of in-
ference which causes the assumption of 'judgment,' but the
assumption of 'judgment' which causes the false view of
inference.   And 'judgment' does not arise by reference to
inference, as Cook Wilson here suggests, but by reference to
statement, as he everywhere else maintains.[1]

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[1] This paragraph suffers in clearness through not being accompanied by
an account of Cook Wilson's view of inference, and must be puzzling to
those unacquainted with that view.   It is, however, impossible to set it
out within the limits of this article.   But it may be helpful to add this
observation.   Whereas the statement that we cannot know the conclusion
by itself is an absolutely correct statement of Cook Wilson's view, the
statement that we only know the conclusion in knowing that the pre-
misses necessitate the conclusion is an exaggeration—an exaggeration
which Cook Wilson himself frequently makes, and which sometimes has
to be made for the sake of shortness.   Actually, there are two ways in
which on Cook Wilson's view the conclusion may be known.   Either it
may be known in the knowing that the premisses necessitate the con-
clusion, or it may be known in the memory that we formerly apprehended
it to be necessitated by some (now forgotten) premisses.   (Cook Wilson's
account of this second case is on pages 425-433 and 451.)   But both these
cases have the essential feature in common, that in neither of them is the
conclusion directly apprehended by itself.   In each case it is apprehended
as an element in a more comprehensive fact.

SINGULAR PROPOSITIONS.

§ 1

CERTAIN views which are stated in the published works of Dr. J. N. Keynes[1] and Mr. W. E. Johnson[2] were referred to in a recent number of MIND as offering a solution to the difficulties to which Mr. C. H. Langford had drawn attention in his discussion.[3] Both there and in his more recent paper[4] Mr. Langford advances doctrines which in some respects call, I think, for further elucidation.

It may be best to begin with a concrete example which can be dealt with without resort to symbols or other technicalities. When I inform you that my ruler is straight, you are really being presented with two distinct pieces of information : first, that it *is* the case that my ruler exists ; secondly, that it is *not* the case that my ruler lacks straightness. But suppose I am in a less generous mood and want you to receive the second piece of information alone. Then, instead of "My ruler is straight," I can say merely "It is not the case that my ruler lacks straightness"; through careful study of official answers to questions asked in Parliament one learns that increase in the length and number of words used may effect a considerable economy in the quantity of information conveyed. Clearly the fuller statement "My ruler is straight" involves fresh logical force as compared with the bare statement "My ruler exists". Similarly the mere assertion "It is not the case that my ruler lacks straightness" is of weaker logical force—*i.e.* conveys less information—than the fuller statement "My ruler is straight". For this fuller statement gives expression to a more far-reaching assumption, in which there is involved the force not only of what is expressed by "It is not the case that my ruler lacks straightness" but also of what is expressed by "My ruler exists". Thus both of these latter propositions follow from the stronger proposition *My ruler is straight* —so that *My ruler is straight* is a proposition which entails the more complicated proposition *My ruler exists and it is not the case that my ruler lacks straightness.*

[1] *Formal Logic*, p. 88, note 2, and p. 209 of Third Edition (1894).
[2] *Logic*, Part I., pp. 71-73.
[3] "On Propositions belonging to Logic," MIND, No. 143 (July, 1927), pp. 342-353.
[4] "Singular Propositions," MIND, No. 145 (Jan., 1928), pp. 73-81.

Of course one has to admit that whenever the proposition *It is not the case that my ruler lacks straightness* is true the stronger proposition *My ruler is straight* will in fact be true as well. All I wish to contend for is that the former and *weaker* proposition neither asserts nor entails the latter and *stronger* proposition. Now Mr. Langford disputes my contention : he considers that these two propositions have identically the same logical force, that they are (in other words) *logically equivalent*.[1] For he believes that what I have called the weaker proposition not only follows from but also entails what I have called the stronger proposition.

§ 2

The precise point at issue can be more clearly brought out as follows. Consider the pair of propositions :—

(i) *It is not the case that my ruler lacks straightness.*
(ii) *It is not the case that my ruler is straight.*

Mr. Langford considers (i) to be inconsistent with (ii).

I, however, maintain that although (i) and (ii) will not in fact both be true together there is nevertheless no inconsistency incurred in supposing them both true. A sufficiently close analogy that might be instanced is the following. After making the statement " This shade of colour is yellow-or-orange " you can quite consistently go on to add " This shade of colour is some shade other than yellow ". In such a case, both your statements will be true if it is true that this shade of colour is orange. Similarly (i) and (ii) would both be true if *It is not the case that my ruler exists* were a true proposition (which it is not).

I shall assume that the asserting of (ii) is logically equivalent to asserting that *either* the proposition *My ruler exists* is false *or* the proposition *It is not the case that my ruler lacks straightness* is false ; for I regard *My ruler exists and it is not the case that my ruler lacks straightness* as logically equivalent to (though *not* as giving the analysis of) *My ruler is straight*. One can consistently hold *both* that a specified proposition is true *and* that either this specified proposition is false or some other proposition is false. Now in the example we are considering (i) plays the part of " a specified proposition " and *My ruler exists* plays the part of " some other proposition ". (We are supposing that *My ruler exists* neither follows from nor entails *It is not the case that my ruler lacks straightness*.)

Still considering the pair of propositions (i) and (ii), I shall regard *Either it is not the case that my ruler exists or my ruler is straight* as logically equivalent to (and—though this is not essential for my present argument—as actually giving the analysis of) proposition (i). But, as has already been said, proposition (ii) is to be regarded as

[1] And hence that their contradictories are equivalent. Thus he says (*loc. cit.*, p. 73) : " Whoever denies with regard to *this* that it has *f* is holding a proposition which entails and follows from the proposition, *This does not have f* ".

logically equivalent to *Either it is not the case that my ruler exists or my ruler lacks straightness.* Consequently the joint assertion of (i) and (ii) will be logically equivalent to *Either it is not the case that my ruler exists or my ruler is straight, and either it is not the case that my ruler exists or my ruler lacks straightness.*[1] And this in turn is logically equivalent to *Either it is not the case that my ruler exists or my ruler both is straight and lacks straightness,*[2] where one alternative (expressed by the words " It is not the case that my ruler exists ") is *not* logically impossible and the other alternative *is* logically impossible. But unless *each one* of the two alternatives is logically impossible the whole proposition, which asserts at least one of the alternatives to be true, will not be logically impossible. Hence, as against Mr. Langford, I maintain that (i) can be consistently conjoined with (ii).

Nevertheless I share Mr. Langford's belief that *My ruler is straight* entails *It is not the case that my ruler lacks straightness.* And our agreement even goes one stage further; for we both admit that *My ruler is straight* is a proposition which *is materially implied by* the proposition *It is not the case that my ruler lacks straightness.* But Mr. Langford asserts, whereas I deny, that *My ruler is straight* follows from *It is not the case that my ruler lacks straightness.* Consequently I deny that *It is not the case that my ruler lacks straightness, and it is not the case that my ruler is straight*[3] is a proposition which *could not be true,* though I grant it to be a proposition which as a matter of fact is not true; Mr. Langford, on the other hand, holds it to be a *logically impossible* proposition. And since we both agree as to its falsity we shall both admit the truth of its contradictory,[4] which is the proposition *Either my ruler lacks straightness or my ruler is straight.*[5] Now the existence of my ruler is entailed not only by the alternative *My ruler lacks straightness* but also by the alternative *My ruler is straight,* and therefore the proposition *My ruler exists* follows from the proposition *Either my ruler lacks straightness or my ruler is straight.* Does the existence of my ruler *also* follow from the contradictory of this latter proposition? I deny that *My ruler exists* is entailed by *It is not the case that my ruler lacks straightness, and it is not the case that my ruler is straight.* For this latter proposition is, in my view, without existential

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[1] Which can be expressed more concisely in the form $\smile .! \, (a \; exists)$ $. \, \mathbf{v} \, . \, !fa : \smile ! \, (a \; exists) . \, \mathbf{v} . \smile fa$, where $!fa$ is an abbreviation for *My ruler is straight* and fa is an abbreviation for *It is not the case that my ruler lacks straightness.*

[2] Or $\smile .! \, (a \; exists) : \mathbf{v} : !fa . \smile fa.$

[3] Or $fa . \smile !fa$—which Mr. Langford (*loc. cit.*, p. 81) declares "could not possibly be true ".

[4] That such a proposition has no proper contradictory is, of course, one of the fundamental assumptions made by Mr. Langford which I shall have to discuss in the course of this reply.

[5] Or (*My ruler is straight*) *is materially implied by* (*It is not the case that my ruler lacks straightness*).

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import[1]: hence any conclusion which follows from it alone will
likewise be devoid of existential import; and therefore it cannot
be used to infer a logically impossible proposition to the effect that
something exists which *both* possesses *and* lacks the property of
straightness.[2]   This latter proposition would thus appear *not*
to be logically impossible; at least I do not see what other
arguments could remain for Mr. Langford to bring up in order to
prove it to be logically impossible.

§ 3.

We have seen how "My ruler is straight" is assumed by Mr.
Langford to follow from "It is not the case that my ruler lacks
straightness". But can he make such an assumption unless he
regards as logically necessary[3] the proposition "*My ruler is straight*
is materially implied by *It is not the case that my ruler lacks straight-
ness*"? And if the last mentioned proposition is logically necessary,
surely it will have to be certifiable on logical grounds alone?

On the one hand, he will regard the above-mentioned proposition
as having existential import. For, he considers, it can be shown:[4]
"that all singular propositions without exception have existential
import".

On the other hand, in his earlier article he laid down the principle:[5]
"No proposition which is certifiable on logical grounds alone can
have existential import".

So it is essential for him to maintain that *no* proposition which
involves one or more existents in its analysis will be logically
necessary. Now in his earlier article he says (speaking of 'primary
propositions'—such as "This is coloured"—and 'elementary
functions of primary propositions'—such as $\phi a \cdot \vee \cdot \smile \phi a$):—"*No*
proposition of this kind is *necessary*, even when it is a value of a
necessary universal proposition," and again, "Elementary functions
of primary propositions have existential import. These elementary
functions are *not* certifiable logically because primary propositions

[1] *I.e.* does *not* entail *There is at least one existent in the world.*

[2] *I.e.* a logically impossible proposition which is equivalent to the
proposition $(\exists x) \cdot fx \cdot \smile fx.$

[3] Since simple atomic propositions will never be logically necessary,
any singular proposition which is logically necessary may be expressed
in a *hypothetical* form—*i.e.* as a contradictory of a conjunctive proposition.
And what is asserted in asserting *that* it is necessary might be explained,
in metaphorical terms, as follows: "In *no* possible world is to be found
the state of affairs constituted by the presence in and absence from that
world (respectively) of facts corresponding to such-and-such simple atomic
propositions". Thus a tautology, such as (*This is square*) *is materially
implied by* (*This is square*), is true in all possible worlds—in those which
do *not* contain, as well as in those which *do* contain, the existent named
by "*this*". On the other hand, the contingent proposition *!* (*This is
square*) will be false in every possible world which does not contain the
existent named by "*this*".

[4] *Loc. cit.*, p. 74.   [5] MIND, No. 143 (July, 1927), p. 342.

do not have proper contradictories." [1] But whether he regards *all* singular propositions as being contingent is not altogether clear. Thus he tells us : [2] "A proposition is said to be *contingent* when, and only when, it is such that it could be true and could be false. . . . I shall present arguments designed to show that all *contingent* singular propositions have existential import, and other arguments designed to show that all singular propositions *without exception* have existential import " (italics mine). Or again (to take one of his own examples) we might consider the hypothetical proposition :—

$!\phi a$ *is materially implied by* $(x) . \phi x : !\phi a \vee \smile \phi a.$

Obviously this hypothetical proposition will, on his view, have existential import ; for the existent a enters into its analysis. And yet he seems to regard this hypothetical proposition as certifiable on logical grounds alone, since he says : [3] " In order to infer $!\phi a$, we require, for example, $(x) . \phi x : !\phi a \vee \smile \phi a$ ". For what Mr. Langford is here saying must surely mean that $!\phi a$ (which is a proposition with existential import) *follows from* the pair of premises

(i) $(x) . \phi x,$

(ii) $! \phi a \vee \smile \phi a,$

where (ii) has existential import, whereas (i) does not. And presumably he would grant that if one proposition q follows from another proposition p then the proposition q *is materially implied by p* is certifiable on logical grounds alone. And if he holds that no existent can enter into the analysis of a proposition which is certifiable on logical grounds alone, what becomes of the *validity* of the inference from $(x) . \phi x : ! \phi a \vee \smile \phi a$ to $! \phi a$?

My own view is that, if an existent enters into the analysis of a proposition, then that proposition cannot belong to Logic (since it will not be expressible solely in terms of logical constants), and yet that proposition may quite well be certifiable on logical grounds alone—in which case its contradictory will be a proposition which is logically impossible. Take for example a tautology such as (*This is coloured*) *is materially implied by* (*This is coloured*). I hold that this tautology *is* certifiable on logical grounds alone and deny that it has existential import ; Mr. Langford apparently holds that it has existential import [4] and denies that it is certifiable on logical grounds alone.

[1] MIND, No. 143 (July, 1927), p. 343 and p. 344.

[2] *Loc. cit.*, p. 74 and p. 77.

[3] MIND, No. 143 (July, 1927), p. 344.

[4] Why should Mr. Langford attribute existential import to a singular proposition which is hypothetical in form, while denying it of the hypothetical proposition (*Something is coloured*) *is materially implied by* (*Something is coloured*)? For to assert that something is coloured is to assert a proposition which has existential import ; and similarly if it is asserted that this is coloured. And, leaving aside that special case, one might ask why $(\exists x) . \phi x . \supset . (\exists x) . \psi x$ is held *not* to have existential import, when existential import has been attributed to $!\phi d . \supset . !\psi d$.

So one question to be discussed is whether some propositions may not *both* be certifiable on logical grounds alone *and* involve one or more existents in their analysis. And we also have to consider the question of the connection (or lack of connection) between one or more existents being involved in the analysis of a proposition and the existential import of that proposition.

First let us choose some specific proposition—say the proposition *All philosophers are liable to error*. This chosen proposition, whatever it may be, will *not* have existential import if any single one of the under-mentioned conditions is fulfilled :—

(1) Our chosen proposition is strictly a *contradictory* of another proposition which *does* have existential import.

(2) Our chosen proposition *follows from* (in other words, *is entailed by*) a set of premisses *each* of which is a proposition without existential import.

(3) Our chosen proposition is strictly a contradictory of a logically impossible proposition—so that our chosen proposition, in addition to being true, is *logically necessary* (whereas our chosen proposition does not need even to be true in order to satisfy condition (1) or condition (2)).

Although one and the same proposition might satisfy all three conditions, our chosen proposition nevertheless *need* not satisfy more than *one* of these conditions in order to be without existential import. Thus *All philosophers are liable to error*, if understood as being strictly a contradictory of a proposition (*viz. There is at least one philosopher who is not liable to error*) which has existential import, will be a proposition without existential import,[1] on account of condition (1).

Let us next consider the singular proposition *Socrates is liable to error*, interpreted as having existential import. Condition (2) compels us to deny that this singular proposition follows from the pair of premisses :—

(i) *All philosophers are liable to error*,
(ii) *Socrates is a philosopher*,

unless premiss (ii) has existential import ; for we have already agreed that (i) is without existential import. Suppose then that we interpret the singular proposition *Socrates is a philosopher* as having existential import. With this proviso the two premisses (i) and (ii) will together entail the conclusion *Socrates is liable to error* (our conclusion being a singular proposition which has existential import).

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[1] That is to say, will be a proposition from which it will *not* follow that at least one philosopher exists, and, further, from which it will *not* follow that at least one being who is liable to error exists. Thus it will be described by Mr. Johnson as a universal proposition of the form A_n, in contradistinction to universal propositions of the form A_f (see his *Logic*, Part I., p. 134 : " We will distinguish the proposition which *contains* the instantial affirmation of its subject-adjective from the (otherwise) same proposition which does *not* contain this affirmation by using the suffix f for the former and n for the latter ".)

Now we may take this last-mentioned singular proposition to form the consequent in a hypothetical proposition, the other singular proposition *Socrates is a philosopher* being the antecedent. To be perfectly definite, let us consider the hypothetical proposition (*Socrates is liable to error*) *is materially implied by* (*Socrates is a philosopher*). Such a hypothetical proposition, in my view, will *not* have existential import, although it involves in its analysis an existent (*viz.* Socrates) and is thus a *singular* proposition. Mr. Langford, as we have seen, holds the contrary view "that all singular propositions without exception have existential import". I am unable to accept his view for the two following reasons :—

(1) (*All philosophers are liable to error and Socrates is a philosopher*) *entails* (*Socrates is liable to error*) is a true hypothetical proposition. But this hypothetical proposition is logically equivalent to [*All philosophers are liable to error*] *entails* [(*Socrates is liable to error*) *is materially implied by* (*Socrates is a philosopher*)]. Also, we are supposing that *All philosophers are liable to error* is a proposition without existential import. If, therefore, the singular proposition (*Socrates is liable to error*) *is materially implied by* (*Socrates is a philosopher*) were to have existential import, then a proposition with existential import would have been validly inferred from a proposition without existential import. Since I deny that a conclusion having existential import ever follows from premisses each single one of which is without existential import, I am compelled to deny that the singular proposition (*Socrates is liable to error*) *is materially implied by* (*Socrates is a philosopher*) has existential import.

(2) (*Socrates is liable to error*) *is materially implied by* (*All philosophers are liable to error and Socrates is a philosopher*) is a proposition which involves in its analysis an existent (*viz.* Socrates). Hence it will presumably have existential import, on Mr. Langford's view.

Now if the truth of the above-mentioned proposition is certifiable on logical grounds alone and if propositions certifiable on logical grounds alone never have existential import, then the above-mentioned proposition will *not* have existential import. And Mr. Langford may be supposed still to accept his own expressly declared view that propositions certifiable on logical grounds alone never have existential import. Therefore he will have to maintain that not merely the above-mentioned proposition, but *all* propositions involving one or more existents in their analysis, are not certifiable on logical grounds alone, but are contingent propositions. But can one assert that the above-mentioned proposition is merely contingent without denying that *All philosophers are liable to error and Socrates is a philosopher* entails *Socrates is liable to error* ? Yet that *that* conclusion can be validly inferred from *those* premisses seems no more open to doubt than that *All philosophers are liable to error and the Pope is not liable to error* entails *The Pope is not a philosopher.*

§ 4.

So much for the problem whether a proposition can be found which *both* is certifiable on logical grounds alone *and* involves one or more

existents in its analysis. We may, however, pursue a little further our enquiry as to what connection (if any) there is between the question of a proposition having, or not having, existential import and the question of there being, or not being, at least one existent involved in the analysis of that proposition. But we must first introduce one or two definitions.

Let P be a proposition and let d be an existent involved in the analysis of P. We shall say that d is **existentially involved in the analysis** of P if, and only if, the truth of P entails the existence of d.[1] For example, the existent named by " *this* " will be ' existentially involved in the analysis ' not only of *This exists* (which is a true *contingent* proposition) but also of the logically impossible proposition *This lacks existence ;* the very same existent will also be involved—but, according to my view, *not* ' existentially involved '—in the analysis both of the contingent proposition *It is not the case that this exists* and of the logically necessary proposition *It is not the case that this lacks existence.*

Suppose now that P can be expressed in the form $q . | . r | s$, where $r | s$ and q and r and s will each be "*parts*" of P. Then both r and s will be said to be **positively occurring** parts of P, while both $r | s$ and q will be said to be **negatively occurring** parts of P. Quite generally, a given part of P will be a **positively occurring**, or a **negatively occurring**, part according as P can be built up from that given part by performing an *even*, or an *odd*, number of repetitions of the stroke-operation. In every case where P is thus built up there must be a *last* performance of the stroke-operation, and the stroke in question may be called the **principal stroke** of P. Thus, in the above example the ' principal stroke ' will be the stroke by which P is completed out of the parts $r | s$ and q.

Suppose that P has been expressed in the simplest form possible on the stroke notation. Then the following three conditions will, in my view, be sufficient to ensure that d is *existentially involved in the analysis* of P :—

> " d is existentially involved in the analysis of a part of P which
>> *both* (1) occurs positively to the left of the principal stroke in P at least once.
>> *and* (2) occurs positively to the right of the principal stroke in P at least once.
>> *and* (3) has *no* negative occurrence in P."

If all three of the above conditions are satisfied, P will, I consider, entail the existence of d.

Also, d will not be existentially involved in the analysis of P if those parts of P in the analysis of which d is existentially involved *either* do *not* have positive occurrence on *both* sides of the principal stroke *or* occur in P at least once negatively.

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[1] Or (what comes to the same thing) if, and only if, P is of the form *!fd* and entails $(\exists x) . fx \vee -fx$.

To take an example, let us interpret *You are ill* as entailing your existence, and *I am ill* as entailing my existence. Now *You are ill* occurs only on one side of the principal stroke in the proposition *You are ill or I am ill*, which accordingly will *not* entail your existence (though it does entail the 'particular proposition' *At least one individual exists*). Similarly, neither your existence nor my existence will follow from the truth of the hypothetical proposition (*You are ill or I am ill*) *is materially implied by* (*I am ill*). For *I am ill* occurs negatively as well as positively in this hypothetical proposition, while *You are ill* has no occurrence at all on one side of the principal stroke.

Two important consequences, which will result from the assumptions that have just been formulated, may here be noted.

In the first place, two propositions, which are strictly contradictories of one another, will not *both* have existential import.

In the second place, if any assigned existent which is involved in the analysis of one of the premisses is existentially involved in the analysis of a validly inferred conclusion, then that assigned existent is *existentially involved* in the analysis of at least one of the premisses. Moreover, it will in all cases be found that a conclusion, in the analysis of which an assigned existent is *existentially involved*, will *not* follow from premisses none of which involve that assigned existent in their analysis.

As against Mr. Langford, therefore, I am able to maintain that, given the truth of *p is inconsistent with* $\sim q$, the truth of *p entails q* follows in every case without any special qualifications or exceptions having to be mentioned. In my view, *p entails q* and *p is inconsistent with* $\sim q$ will have precisely the same logical force, will be logically equivalent.

Each one of the differences between our respective views can, ultimately, be traced back to our having given contrary answers to the question : can an existent be involved in the analysis of a specified proposition *without* being 'existentially involved in the analysis' of that specified proposition ? There are three points over which we shall both agree :—

First, if a specified proposition has existential import, then any 'proper contradictory' of that specified proposition will be without existential import.

Secondly, if a specified proposition involves at least one existent in its analysis, then any 'proper contradictory' of that specified proposition will involve at least one existent in its analysis.

Thirdly, there are propositions which have existential import and which involve no existents in their analysis—*e.g.* the Axiom of Infinity, or the weaker proposition *There is at least one existent*.

But *fourthly*, and lastly, Mr. Langford denies, whereas I affirm, that some propositions which involve at least one existent in their analysis are without existential import.

For this reason Mr. Langford cannot admit there to be any propositions whatsoever which are 'proper contradictories' of a pro-

position that involves one or more existents in its analysis.   My view, on the other hand, allows *all* propositions without restriction to have 'proper contradictories'; a consequence which should perhaps be counted in its favour.   For is it not paradoxical to hold that such a purely *formal* notion as 'proper contradictory' depends for its applicability upon the *material* content of the proposition under consideration, upon the actual analysis of that proposition?

§ 5

Mr. Langford defines [1] a "*contingent function*" as a function which "is such that it could have an instance that is true and could have an instance that is false".   Now it is, I think, extremely important to distinguish such functions from the kind of function which is such that it has an instance that could be true and has an instance that could be false.

So also Mr. Langford says [2] that fx will be an "*impossible function*" when it is such that it "could not have an instance that is true".   But a difficulty arises as to which of the following pair of alternatives is being meant here :—

> I. The proposition that fx has at least one true instance is a proposition which could not be true—*i.e.* $(\exists x) \cdot fx$ is logically impossible.
>
> II. Each single one of the propositions which are instances of fx is a proposition which could not be true—*i.e.* fa is a logically impossible proposition, and so is fb, and so is fc, etc.

And what I wish to urge is that a function may quite well be impossible in sense I. without being impossible in sense II.   For example, the logically impossible proposition $(\exists x) \cdot fx \cdot \backsim \, !fx$ is a proposition asserting there to be at least one true instance of the function $fx \cdot \backsim \, !fx$.   But the proposition $fa \cdot \backsim \, !fa$ will be an instance of the function $fx \cdot \backsim \, !fx$ and will *not*, in my view, be logically impossible (though it will be false).   Possibly Mr. Langford has overlooked the distinction between these two senses in which a function may be said to be "impossible," and (as an inevitable consequence) has seen no alternative but to reject my view.

Suppose we use $r \mid r$ to express the falsity of r, and $r \mid r$ to express the impossibility of r.   Then we can formulate the distinction between these two senses of "impossible" as follows.   "The assertion that the function fx is *impossible* may mean either of the two following alternatives :—

$$\text{I.} \quad (\exists x) \cdot fx : \mid : (\exists x) \cdot fx,$$
$$\text{II.} \quad (x) : fx \cdot \mid \cdot fx,$$

where II. is equivalent to $\backsim [(\exists x) : fx \mid fx \cdot \mid \cdot fx \mid fx]$."

What is asserted by I. is the **necessity of a universality,** whereas what is asserted by II. is the **universality of an impossibility.**

[1] *Loc. cit.*, p. 78.   [2] *Loc. cit.*, p. 78.

More explicitly, I. affirms that the property " *has f* " cannot have application, while II. denies that the property " *may have f* " has application.

What has just been said will perhaps become clearer if we consider Mr. Langford's description (with which I fully agree) of 'general propositions' and their subdivision into 'universal' and 'particular' propositions. Thus he says: " *General* propositions are propositions which assert with regard to properties that they do or do not have instances which are true; and *singular* propositions are instances of properties ". And again: " To assert with regard to a function fx that it has at least one instance which is true, or at least one instance which is false, is to assert a *particular* proposition. A *universal* proposition is logically equivalent to the denial of a particular proposition." Suppose, then, that fx is of the form $\phi x \supset \psi x$. Now $(\exists x) . \phi x \supset \psi x$, although it *is* entailed by $\phi d \supset ! \psi d$, is not entailed by $! \phi d \supset ! \psi d$, nor by $\phi d \supset \psi d$, nor by $! \phi d \supset \psi d$. Of course in all cases where $! \phi d \supset ! \psi d$ is true, the 'particular proposition' $(\exists x) . \phi x \supset \psi x$ will in fact be true as well. Yet, from the truth of $! \phi d \supset ! \psi d$, the truth of $(\exists x) . \phi x \supset \psi x$ will *not* follow—*i.e.* it will *not* follow that the function $\phi x \supset \psi x$ has at least one instance which is true. For a 'particular proposition' will only be entailed by premisses having existential import, since it has itself got existential import; but $! \phi d \supset ! \psi d$ is without existential import.

Again, $(\exists x) . \frown fx$ will *not* follow from $\frown ! fa$, if (as I have been maintaining) the latter is without existential import. Hence the truth of $(x) . fx$, when defined as $\frown (\exists x) . \frown fx$, will be perfectly consistent with [1] the truth of $\frown ! fa$; and therefore $(x) . fx$ does *not* entail $! fa$ (although it *does* entail fa).

But if such a proposition as $\frown ! (a \; exists)$ has to be regarded as without existential import, so also has $\frown ! (a \; exists) . \mathbf{v} . ! fa$. Hence fa, when defined as $\frown ! (a \; exists) . \mathbf{v} . ! fa$, will be without existential import and will therefore *not* entail $(\exists x) . fx$. Thus the truth of $(x) . \frown fx$ when defined as $\frown (\exists x) . fx$, will be perfectly consistent with the truth of fa [2]; and therefore $(x) . \frown fx$ does *not* entail $\frown fa$ (although it *does* entail $\frown ! fa$).

It may be noted that each of the four propositions $(x) . fx$, fa, $(x) . \frown fx$ and $\frown ! fa$ is devoid of existential import, whereas their contradictories have in each case got existential import.

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[1] Assuming that by " It is false that *this* has f " he means $\frown ! fa$, **Mr.** Langford will, I consider, be mistaken in his belief that : " $(x) . fx$ is incompatible with the proposition ' It is false that *this* has f ' " (*loc. cit.*, p. 76).

[2] From the logical possibility of $fa : \frown (\exists x) . fx$ one can draw the conclusion that $fa . \frown ! fa$ is a logically possible proposition. For $! fa$ entails $(\exists x) . fx$. Hence $fa : \frown (\exists x) . fx$ entails $fa . \frown ! fa$. Therefore the logical impossibility of $fa . \frown ! fa$ entails the logical impossibility of $fa : \frown (\exists x) . fx$. Accordingly the proposition $fa . \frown ! fa$ will *not* be logically impossible if the truth of $(x) . \frown fx$ is consistent with the truth of fa.

Since it entails the false proposition fa. $\frown ! fa$, the proposition
$fa . (x) . \frown fx$ will be false (though *not*, in my view, logically impos-
sible).   Mr. Langford, however, declares $fa . (x) . \frown fx$ to be a *logi-
cally impossible* proposition : for he describes [1] fa as being "an
instance to the contrary" of the universal proposition $(x) . \frown fx$.
But, so long as one regards fa as being without existential import—
and hence as *not* entailing $(\exists x) . fx$—one can assert the truth *both*
of the universal proposition *and* of such an "instance to the con-
trary," and one's statement, though false, will be free from incon-
sistency.

Moreover, since $(x) . \frown fx$ is logically equivalent to $\frown (\exists x) . fx$,
one cannot assert that fa is inconsistent with $(x) . \frown fx$ without
asserting that fa entails $(\exists x) . fx$.   And one cannot assert that fa
entails $(\exists x) . fx$ without asserting the proposition $\frown fa . \mathbf{v} . (\exists x) . fx$
to be logically necessary, and hence (presumably) to be certifiable
on logical grounds alone.   Since each of its two alternatives have
existential import, the whole proposition $\frown fa . \mathbf{v} . (\exists x) . fx$ will
have existential import.   Hence I deny the alleged inconsistency
between fa and $(x) . \frown fx$, because I hold that no proposition which
is certifiable on logical grounds alone will have existential import.

§ 6.

I should explain that both here and in the earlier discussion I
have almost entirely avoided using the expressions $(\exists x) . ! fx$,
$(x) . ! fx$, etc., because the substitution of fx for $! fx$ in the expression
for a general proposition [2] leaves the logical force unaltered.   Hence
Mr. Langford's remarks under this head express views which are
common to us both.

I also follow Mr. Langford in recognizing that the logical impos-
sibility of $\phi d . \frown \psi d$ may arise in two importantly different cases
according as :—

(1) ψd is a logically necessary proposition, whereas $\phi x . \supset_x . \psi x$
is *not*.

(2) $\phi x . \supset_x . \psi x$ is a logically necessary proposition.

However, it might be convenient to allow the expression "ϕd
entails ψd" to cover both cases.   For then certain analogies would
be retained.   Thus a *true* proposition is *materially implied* by any
proposition ; so likewise a *necessary* proposition is *entailed* by any
proposition.   Again, given any proposition p, a proposition q will
be *true* if *materially implied* not only by p but also by $\frown p$; so like-
wise, given any proposition p, a proposition q will be *necessary* if
entailed not only by p but also by $\frown p$.   The further distinction re-
quired could be effected by saying that, in case (2), it will be true
not merely that ϕd *entails* ψd, but also that ϕd *Entails* ψd (or, if one
prefers, that ϕd **strictly entails** ψd).

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[1] *Loc. cit.*, p. 80.
[2] *E.g.*, if the general proposition be $(x) . fx \mathbf{v} gx$, then each one of the
three propositions $(x) . ! fx \mathbf{v} gx$ and $(x) . fx \mathbf{v} ! gx$ and $(x) . ! fx \mathbf{v} ! gx$ will be
logically equivalent to it.

There is one minor point in regard to which Mr. Langford has misinterpreted my view. He says :[1] "If we adopt the straightforward view that 'It is not the case that a has f' is a primary proposition without existential import and thus different from 'a does not have f,' it is not necessary to hold that there are propositions which could be expressed by the words 'this exists'". As a matter of fact I do adopt the straightforward view in question, but I fail to see how 'a does not have f' (which is better expressed by the words 'a lacks f') can be distinguished from 'It is not the case that a has f' *unless* it is defined as being the conjunction of the last mentioned proposition with the proposition expressed by the words 'a exists'. In support of this contention one perhaps might quote the following passage from a recent article by Prof. G. E. Moore :[2] "'not-fa' in the sense in which it is inconsistent with 'for all x, fx' is not the contradictory of 'fa,' but equivalent to the conjunction of 'a exists' with the contradictory of 'fa'".

There is one further distinction which seems to me to be important and which will simply involve the supplementing, or making more determinate, of Mr. Langford's remark (in his earlier article) that [3] : "No doubt the expression $(x) \cdot \phi x$ can be used in such a sense that $(\exists x) \cdot \phi x$ follows from it; but in this sense $(x) \cdot \phi x$ is not logically equivalent to $\backsim (\exists x) \cdot \backsim \phi x$".

Mr. Johnson [4] has pointed out the difference between '*determinately*' and '*indeterminately*' *instantial* propositions. Since the proposition $(\exists x) \cdot \backsim \phi x$ is 'indeterminately instantial,' its proper contradictory—which is expressed by "$(x) \cdot \phi x$"—will not, I consider, be in any way instantial. Accordingly I suggest the use of "$(x\mathrm{I}) \cdot \phi x$" to express a proposition which shall be indeterminately instantial, in addition to having all the logical force of $(x) \cdot \phi x$; the latter embodies the notion of 'universality,' so the former might be said to embody the more complex notion of 'universality (I)'. Also, I propose to define $(x\mathrm{I}) \cdot \phi x$ in terms of a proposition which may be symbolized by "$(\mathrm{I}x) \cdot \phi x$". The use in this context of the capital "I," which resembles the inverted "E" with its cross-bars left out, serves to keep in mind the fact that $(\exists x) \cdot \phi x$ has all, and *more* than all, the logical force of $(\mathrm{I}x) \cdot \phi x$—*i.e.* that the former entails, but does not follow from, the latter. For anyone who upholds the truth of $(\mathrm{I}x) \cdot \phi x$ is merely committing himself to the assertion "If ϕx has any instances at all, then ϕx has at least one instance which is true".

All propositions of the form $(\exists x) \cdot \phi x$ are *either* logically impossible *or else* merely contingent, whereas propositions of the form $(\mathrm{I}x) \cdot \phi x$ are capable of being logically necessary. Again, $(\exists x) \cdot fx \cdot \backsim ! fx$

[1] *Loc. cit.*, p. 75.
[2] *Arist. Soc.*, Supplementary Volume VII., p. 206. Prof. Moore uses 'fa' to express the proposition which will, in my notation, be written '$!fa$'.
[3] MIND, No. 143 (July, 1927), p. 343.   [4] *Logic*, Part I., p. 160.

is a logically impossible proposition, whereas the proposition
$(\imath x) . fx . \frown ! fx$, though false, is *not* logically impossible.[1]

The relations which connect together these various notions can be
tabulated as follows :—

Def. 1 $(\imath x) . \phi x = (\exists x) . \phi x \lor \frown \phi x : \supset : (\exists x) . \phi x.$

Def. 2 $(x \mathrm{I}) . \phi x = \frown (\imath x) . \frown \phi x.$

(1) $(\exists x) . \phi x : \rightarrow : (\imath x) . \phi x.$

(2) $(x \mathrm{I}) . \phi x : \rightarrow : (x) . \phi x.$

(3) $(\exists x) . \phi x : \rightarrow : (\exists x) . \phi x \lor \frown \phi x.$

(4) $(x \mathrm{I}) . \phi x : \rightarrow : (\exists x) . \phi x \lor \frown \phi x.$

(5) $(\imath x) . \phi x : (\exists x) . \phi x \lor \frown \phi x . : \rightarrow : (\exists x) . \phi x.$

(6) $(x) . \phi x : (\exists x) . \phi x \lor \frown \phi x . : \rightarrow : (x \mathrm{I}) . \phi x.$

(7) $(x \mathrm{I}) . \frown \phi x : \rightarrow : \frown (\imath x) . \phi x.$

(8) $\frown (\imath x) . \phi x : \rightarrow : (x \mathrm{I}) . \frown \phi x.$

Now (1) and (3) and (5) can be combined into the single statement

$(\exists x) . \phi x$ *is logically equivalent to* $(\imath x) . \phi x : (\exists x) . \phi x \lor \frown \phi x$

Again, (2) and (4) and (6) can be combined into the single statement

$(x \mathrm{I}) . \phi x$ *is logically equivalent to* $(x) . \phi x : (\exists x) . \phi x \lor \frown \phi x.$

Thus it is $(x \mathrm{I}) . \phi x$ from which $(\exists x) . \phi x$ follows, whereas it is
$(x) . \phi x$ which entails and follows from $\frown (\exists x) . \frown \phi x$. And $(\imath x) . \phi x$
does follow from $(x) . \phi x$, although $(\exists x) . \phi x$ does not.

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[1] Indeed, since its contradictory will always be a proposition having
existential import (in virtue of being ' indeterminately instantial '), *any*
proposition of the form $(\imath x) . \phi x$ will have to be *either* contingent *or*
logically necessary.

J. A. CHADWICK.

IS THERE A MORAL END?

Many who were present at the interesting discussion at Bristol in July on the question, "Is there a Moral End?" seemed to feel that an important issue had been raised by Prof. Stocks and the other openers, but that the result was disappointing. Some I am sure found themselves at the end in a worse state of fog than at the beginning. A momentary light seemed to dawn when the Chairman, with his usual perspicacity, insisted on the distinction between subjective and objective rightness. But deeper darkness descended, when, in reply to a question as to the rightness of endangering the limb and life of a member of the audience by an act of unintentional carelessness, he pronounced that even though the consequences had been fatal the act was certainly subjectively right and *probably* objectively right as well.

I venture with the kind permission of the Editor to return to the subject of the discussion here because I felt at the time that the whole issue was obscured from the first by failure to recognise the full scope of the question and the precise point at which any real difference of opinion arose, in the end by the neglect of a very simple distinction.

The question was no less than the nature of moral as distinct from merely instrumental value, and one striking feature of the discussion was that no attempt was made by anyone to resolve the one into the other on the old utilitarian lines. It seemed even generally agreed that "means and end" is a distinction only valid at a certain level, that there may be levels of life at which it ceases to be applicable and that moral action may be one of these. Difference only arose when it was asked whether this admission carried with it the exclusion of the idea of purpose from the moral attitude. Even here no real attempt was made to exclude purposefulness in general—as how could there be? To say moral value is to say object of will and to say object of will is to say purpose. The real question only came into view when it was asked. 1. Granting purpose, is the purpose exhausted in that of doing "right"? or does the "right" involve a reference to some value or good other than the mere rightness of the act? 2. If you say that it does how can you escape the error of utilitarianism whereby the act appears as of merely instrumental value?

1. When the first of these questions is so stated, it does not seem possible to make abstract rightness the be all and end all of moral action without going back on the whole history of moral philosophy.

It would at any rate require far fuller proof than any that was forthcoming at the discussion. To Plato it was the good and not rightness or righteousness that was the reality men seek to express in conduct. Aristotle made a great deal of "right reason," but this was a function of φρόνησις or wisdom of life. To the Stoic the law was the law of liberty. Not even Kant with all his rigorism succeeded in freeing his imperative from reference to the concrete life of humanity. The only tenable interpretation of his "good will" is "the will to good". As a matter of fact the course of the discussion seemed to show that no one was willing to commit himself to an abstract rightness. What writers and speakers alike found difficult was to see how any further reference in the good act could be to anything else than *good results* and how any such reference was compatible on the one hand with the intrinsic worth which we ascribe to the good act as the embodiment of the right and on the other with human responsibility which could only extend to the purity of the motive and not to the consequences that might accrue in the world. It is here that the second of the above questions rises.

2. If moral conduct is directed to any end other than its own rightness have we not something in the future different from the act itself which thus necessarily suffers degradation? We may indeed try to escape the degradation of it to a mere means, as Prof. Stocks thought that the theory of "self-realisation" sought to do, by making the act part of the process of self-development. But he also thought that this is merely an evasion so long as the element of futurity is retained, and that the formula "obscures the essence of morality as effectually as any other purposive interpretation." So far from being the essence of morality, "whole-hearted attention to this aim" may "in certain circumstances be condemned as immoral".

These are real difficulties and the criticism directed against the idea of self-realisation, so much in vogue since Green and Bradley wrote, should be particularly welcome to those who while sitting loose to that formula still hold to the spirit of their analysis.

We might indeed object in the name of that spirit to the narrowness with which the formula is conceived when taken as by Prof. Stocks to mean merely the development of personal character. It would be difficult to find any passage in either of these writers in which it is so interpreted. Bradley's celebrated chapter on "My Station and its Duties" is an express repudiation of it. But however the "self" is conceived of, the above criticism might still be pressed and, on the ground taken by the critic, would be difficult to meet. We should be on safer ground in noting that precisely the same count of immorality which he brings against the formula of "self-realisation," when taken in abstraction from the right, might be urged against the formula of "doing right," when taken in abstraction from what "the right" *means*. *Tantum religio potuit suadere malorum* is as true of the religion of "duty and right" as of any other. But a *tu quoque* is not an answer to the difficulty

that was raised. All it shows is that it is as impossible to reach a satisfactory answer to our question of what gives moral value by denying concrete objective reference as by insisting upon it as a reference to something which stands to the act, if not as end to means, at any rate as future to present.

What I wish to suggest as the way out of this antinomy is that in the whole discussion we make a false start and queer the pitch from the beginning when we take our departure from the *good act* instead of from the *good man* and when, as a consequence, we proceed to ignore the distinction between what is *before* the mind at any moment or in any situation and what is *in* the mind as a permanent attitude or character. If you start from the act you seem bound to say it either aims at the good or it does not. If it aims at the good it has something future in view and is a means, or if you prefer it a step, to something further ; if it does not it seems to end with itself and to be so far meaningless.

But this is not the alternative. The act has only moral significance as the self-expression of the good man and the good man is not the man who in action gives " whole-hearted attention " to a general end " greatest happiness " " self-development " or however else it may be defined. (We use quite other terms in describing this monstrosity.) He is the man whose habits of thinking are so permeated with the idea of what is of real value in life, that moral situations (all situations ?) are inevitably, albeit unconsciously, interpreted in the light of it. He has acquired what Aristotle calls the "habit of right choice ". The end we might say is *in* him not *before* him. As a consequence, he can afford to let himself go on the particular object that is before him—the job of the moment. There may be occasions on which he may seek guidance from the general principle, to correct so to speak his instruments. I do not think there are many. As a rule he trusts his intuition and he is right in doing so, not because it is an intuition but because it is a trained one. There is thus an element of *indirection* in all good action. Mill found this out with regard to pleasure. But it is equally true of the wider ends of life. It is not so much that " we never go so far as when we don't know where we are going " as that we never go so far in the direction in which our hearts are set on going as when we forget it in the interest of the moment. John Stuart Mill was himself " so good a man " as Green said of him, not because he gave " whole hearted attention " to the greatest happiness principle but because his whole mind and being was permeated with the idea of human improvement as he conceived it.

In view of such an analysis I believe that most of the difficulties raised in the discussion fall away. There is no question of means and end. Rather it is a question of universal and particular—the expression of a general character of mind in an individual act. How the particular object is to be realised, how the situation is to be met is a question of right choice of the means. No good intentions excuse blundering execution. But the ultimate end appears not as

something to which the act is a means but as loyalty to the principle of a lifetime. So with the difficulty of the "subjective" and the "objective" right. Conduct never ends with itself. It takes effect in a world of objective values for the actualisation of which we are responsible. But the responsibility is limited by the finitude of our insight. All that we can make sure of is that we have done our best. For the rest we have to "trust the Universe". It is true that "the best laid schemes of mice and men gang aft agley". But it is equally true that "a man's a man for a' that" and that as Aristotle put it "the noble shines through". It was this that was meant by those speakers who like Dr. Coit claimed that we are on surer ground in exhorting people to do right than in exhorting them to do good. But this is only true when "to do good" means that impossible thing "good in general". It is not true that you can separate the right from the good. An act can only be right if there is "some good in it," and because in doing it we have "done our best". Finally of the "intrinsic" goodness of an action—this cannot mean that an action can be without reference to a world beyond itself. "Duty for duty's sake" is surely by this time the emptiest of abstractions. What it does mean is, as we have already seen, that apart from unforeseeable consequences the act in which a good man has done his best has a value of its own which nothing in the "event" can either add to or take away. *Stat sua mole* and is a contribution to the moral wealth of the world.

Many questions doubtless remain—more particularly that of the form that the particular good aimed at takes in the mind of the agent: whether even this is present at first as a definite idea at all or is not rather something that grows and develops in the process as an artist's idea grows in the process of execution. But this was not raised in the discussion and only properly rises after the difficulties which were raised have been disposed of.

J. H. MUIRHEAD.

VI.—CRITICAL NOTICES.

The Good Will: a study in the Coherence Theory of Goodness. By
H. J. Paton. London, George Allen & Unwin, 1927. Pp. 448.

In the introductory chapter Prof. Paton describes shortly the general
character of the ethical theory expounded in this book.[1] "That
theory has two main sides, indicated by the title and the sub-title
respectively. The first is that goodness has its roots in the spiritual
activity called willing; that it belongs to things, not in themselves,
but as objects of some kind of willing; and that the apprehension of
goodness is not merely an intellectual matter, but demands for its
possibility the presence of a particular kind of will. The second is
that goodness belongs to the coherent will; that different kinds of
goodness, whether in actions or in things, are due to the different
kinds of coherence in the will which wills them; and that moral
goodness in particular belongs to a will which is coherent as a
member of an all-inclusive society of coherent wills" (p. 20). Mr.
Paton has intentionally avoided controversy as much as possible,
and, except in one chapter which has a special purpose, very seldom
refers to other writers and not often to other theories, so that the
book gives an uninterrupted exposition of a single type of theory.
He has also endeavoured to avoid unnecessary technicality and has
largely succeeded in doing so, though he is not wrong in suspecting
that he does not "speak consistently the language of the market-
place": for that matter, there can be a technical quality in think-
ing as well as in expression.

The general scheme of the book is as follows. After an introduc-
tory chapter the treatise is divided into five Books. Book I. (chaps.
ii. to iv.) deals with certain preliminary matters such as the self
which wills and the relation of the self to the world. Book II. ' The
Will as Immediate ' (chaps. v. and vi.) deals with willing and good
in their simplest conceivable phase—a phase which is rather an
ideal limit than an actual fact. Book III., ' The Will as Individual '
(chaps. vii. to ix.) deals with willing and good in the life of the in-
dividual taken provisionally in abstraction from his social relation-
ships. Book IV., ' The Will as Social ' (chaps. x. to xii.) removes
this abstraction and deals with the will as affected by social relation-
ships. In social or co-operative willing the moral aspect of the will
is already involved, and Book V., ' The Will as Moral ' (chaps. xiii.
to xvi.) deals with this aspect in more detail.

I will now outline the topics dealt with in the several chapters,
commenting on points here and there, but reserving my more
general comments and criticisms till later. Chapter ii. is the
solitary controversial chapter in the book. In view of the kind of

[1] Neither MIND nor the reviewer is responsible for the late appearance
of a Notice of the book.

criticism to which Moore subjected idealistic ethics in his *Principia Ethica*—criticism which, if valid, would show all such ethics to be fatally mistaken from the start—Mr. Paton thinks it necessary to explain his reasons for rejecting Moore's arguments. He deals not only with the ethical arguments, but also with the logical assumptions upon which he takes them to depend ; and the chapter as a whole is very successful in stating a somewhat involved and difficult subject as clearly and simply as possible. Chapter iv. is another excellent chapter. It shows how the modern scientific view of the world tends to make the self appear as a mere product of natural causes, then indicates briefly the plain and common-sense reasons why we need not "allow ourselves to be unduly intimidated" by the scientific view, and adds a short but effective criticism of the doctrine that the only kind of value is survival value. About the intermediate chapter, which deals with the 'Self and Self-Knowledge,' I am more doubtful. It raises difficult questions of a metaphysical and psychological kind, some of which, one would think, need hardly have been raised in a book on ethics. The self is defined as an activity. Mr. Paton recognises that there are some who "would maintain that there can be no activity unless there is something which acts". An activity certainly does seem to imply an agent, and in any case the use of the latter term would surely be unobjectionable in ethics. He goes on to describe the self as a "self-transcending, self-mediating activity". The adjectives are at once explained, and, I suppose, are to be reckoned among the technical terms the use of which was found to be "inevitable," but the technicality perhaps goes deeper than the mere use of terms. The section on Self-Knowledge raises difficulties of a more substantive kind. "If we know [our own] activities by reflexion," Mr. Paton says, "they must somehow already be, if they are to be known by reflexion". This we must certainly allow. But "in order to be," he continues, "and to be what they are, they must be conscious; and this in turn seems to imply that they must be known—for we can hardly refuse to call it knowledge—by something other than mere reflexion" (p. 69). And he takes over the word 'enjoyment' from Alexander to denote this kind of knowledge which is not reflexion. The argument seems to me fallacious, and the term liable to become a confused notion of something that is neither being nor knowing but a sort of intermediate mixture of both. Acts of consciousness must be conscious, of course, but conscious of their objects, not of themselves ; and a consciousness to which they are objects must needs be another consciousness to which their existence is prior. Mr. Paton quotes from Alexander the statement that in enjoyment "my awareness and my being aware of it are identical". This seems a contradiction in terms. What is identical is my awareness and my being aware *with* it, but aware *of* its object. I am inclined to suspect that the acceptance of this notion of enjoyment has something to do with the obscurity which I find in Mr. Paton's view of the relation of willing to knowing.

Chapter v. discusses ' Elementary Willing '. After a brief section on willing and knowing, Mr. Paton makes it clear that from the mere fact that my volition is mine, or that ' I will what I will,' no inference can be drawn as to the will being selfish or always aiming at pleasure. But he goes on himself to say that what we will is always our self, and that in all willing there is at once self-denial and self-realisation, ' a giving up of the old self and a going on to the new ' (p. 108). These statements seem to me to be technicalities of a misleading kind. If we are speaking from the point of view of the agent himself, it seems plainly not true that every new action is experienced as self-denial or as self-realisation and still less as both. If, on the other hand, we are speaking from the point of view of the psychologist, these ethical descriptions are inappropriate as descriptions of willing in general. In the later part of the chapter Mr. Paton warns us against the danger of treating the mind as if it were something outside its own processes—something other than an activity, he no doubt means. " We speak of a man's native disposition or temper or temperament, as if it were a pre-existing thing which somehow issued in his thoughts and actions. . . . Similarly, we speak of his habits or his character, and seem to imply that although these are somehow made by the man's life itself, and are capable of being changed by the same process as that which made them, yet at any time they have a definite existence outside his volitions and a determining influence upon them " (p. 114). But the two cases are surely different. The objection (or one of the objections) to speaking of a pre-existing native disposition is that the phrase may convey no definite meaning, that is to say, may fail to denote any specific factor whose operation can be allowed for. But in the case of a formed character this is not so: we may know that a person holds such and such views about a given matter and is likely to act in such and such a way. From our knowledge of his character we can draw inferences of greater or less probability ; and, if so, I don't see how we can avoid saying that the character has an existence outside and prior to the act. It would be preferable, of course, to say that what exists is an agent of such and such a character, but that is not Mr. Paton's point. He seems to wish to maintain that nothing exists but the acts themselves. " Instinct and temperament and character are names for what we may call regularities in action " (p. 115). Here again the cases of instinct and character are very different, for instinct is little better than a name for some unknown mechanism. But surely both words stand for real causes or factors : the regularities of action don't just happen and then get a name.

If I have understood Mr. Paton's view about Immediate Good (chap. vi.) rightly, he would prefer, in strictness, to say that there is no sheerly immediate or momentary will, and that, even if there were, we could hardly speak of the object of such a will as good. " Good and evil are polar opposites, neither of which has any meaning apart from the other " (p. 121). " Good and evil arise in so far

as the one will can be divided against itself " (p. 122). If, however, we choose by an arbitrary abstraction to conceive a momentary or simple volition, then—contemplating such a volition from the out-side—" we may say that the good is what is willed and the bad what is rejected " (p. 127). Mr. Paton goes on to argue that the contem-plation of immediate willing and its object does not warrant us in holding, *e.g.*, that the good is mere feeling or pleasure, or again that goodness is apprehended by an immediate intuition, whether this intuition be supposed to have for its object a particular act or a general rule or the ultimate principle of all morality. The latter part of the discussion is perhaps not quite in place in this chapter. As regards general rules of morality, Mr. Paton seems inclined, like some other idealists, to disparage them, and to undervalue the part they play in ordinary moral practice. True, they " are not immune from criticism," but they may survive it. Mr. Paton insists here that they are mere generalisations from individual moral judgments, but elsewhere (p. 357) he recognises that a rule may be " really bringing out a principle which was at work in these individual judgments ". May not the principle, then, be of a simple and obvious kind, not greatly affected by the qualifications which become necessary in exceptional circumstances?

The immediate willing and the good dealt with in Book II. are abstract to the verge of unreality. The willing and the good of the single individual which are the topics of Book III. are still highly abstract, but not incapable of being illustrated by actual instances, actual portions of life considered in abstraction from their wider social context. The goodness with which Book III. deals is not moral, but what Mr. Paton (following Croce) describes by the misleading epithet ' economic '. In this narrower sphere of individual and economic good it is all the easier to show what the doctrine of coherence means, and how inevitably our judgments of good must be conformed to it; and Book III. is thus in a way the central one in the whole treatise. As soon as we pass beyond the merely momentary volition we are dealing with what Mr. Paton calls a ' policy '. Although it would no doubt be difficult to get any other single word which would express his meaning better, it must be admitted that this one is not altogether happy, for it suggests a carefully thought-out plan of action, whereas Mr. Paton would apply the word wherever a volition is no longer merely immediate or momentary but implies some reference to other volitions within a wider whole of volition. We have to remember, therefore, that quite trivial or mechanical acts may be part of a ' policy ' in this sense; in fact very few acts of an adult can fail to be parts of a ' policy,' because his acts are normally responses to situations and not to mere isolated stimula-tions. Mr. Paton brings out very well the points that a momentary response may have a far more than momentary significance, and again (*e.g.*, pp. 163, 201) that a policy exhibits the two aspects of spontaneity and consistency, and that these are not opposed to each other but complementary. This chapter (vii.) is one of the best in

the book, and would merit freer quotation than I have space for. Chapters viii. and ix. deal with the Individual Good, *i.e.*, the good corresponding to policy as so far considered. Chapter viii. discusses the goodness of things or instruments, the goodness of skill or efficiency, and lastly the goodness of coherent willing itself, to which the other kinds of goodness are in the end relative. Chapter ix. pursues the discussion and seeks to show more fully the relation of judgments of value to willing. The chapter concludes with what Mr. Paton calls a "mythological" and intellectualistic version of his doctrine, which he thinks likely to be more readily understood. This popular version states the doctrine in terms of the relation between the impulsive and the reasonable self. The reasonable self achieves the maximum satisfaction or goodness of life by seeking to adjust and harmonise the various impulses as far as possible. "To be good [individually] is to realise the impulsive self to the fullest extent, instead of satisfying one impulse at the expense of all the others; and it is also to realise the reasonable self, which can be realised only in securing the fullest possible realisation of the impulsive self" (p. 219). In Mr. Paton's view the error of this popular version seems to consist in representing the reasonable self as too theoretical and calculating. "For life is nothing if it is not passion." To me the error lies in the assumption that any genuine coherence can be imposed on the impulses *ab extra*. In a fashion Mr. Paton too recognises this difficulty. "If there were no passion in the wider will, how could it prevail over the momentary impulse? The victory of practical reason is not a victory over passion, so much as the filling of the moment with a fuller and richer passion" (p. 220). But this is surely the wrong road out. One would like to know by what criterion the fulness and richness of a passion is to be measured. In one or two places, by the way, Mr. Paton holds out hopes of the services which "scientific psychology" is destined to render to the art of living. On this I will only remark that it is a pity to seem to countenance the absurd popular delusions about psychology. He can hardly believe that the art of living is likely to be much advanced by the kind of knowledge that is contained in the actual text-books of the science.

In Book IV. we pass from the individual will taken in abstraction to the individual will in its social setting. Chapter x. shows that even when "we are still considering society as something relatively external to the individual, as a sort of force which acts upon him" (p. 235), the social environment is a fact with which the individual has to reckon at every point. His individual life mingles with the general life of his society on every side, *e.g.*, in the family, in games, in the economic business of life, in the working of the society and state as a whole. Hence individual policy tends on every side to pass into co-operative policy: the individual can attain his ends only in co-operating with others in a policy that goes beyond his own action (pp. 249 ff.). Chapter xi. seeks to show that the full realisation of social co-operation implies the coherence of wills within a

social whole. "Societies are completed and perfected within a society of societies, as policies are completed and perfected within a policy of policies or what we have called a policy of life" (p. 257). As Mr. Paton points out, he is not concerned, from his point of view, "with the special problems of political philosophy". Hence the chapter can only touch upon some of the leading questions in regard to political co-operation. Chapter xii. deals with the conception of goodness as modified by the social factor in the individual's life. In all co-operation goodness must be judged from the social point of view : for in co-operation we make claims upon others and they in turn upon us. Hence our judgments of good and evil are now relative primarily to co-operative willing. "We now seem to see that we actually judge goodness as a wider coherence, as a coherence with the wills of others in a whole, and not merely an internal coherence within the individual's life" (p. 291). But there still remains the question whether all social co-operation is willed and good only as an enrichment of individual life or whether the individual's will and good are definitely subordinated to the will and good of the society in which he and others are alike included. On the former alternative "social morality would be due partly to generous impulses and partly to necessary compromises, . . . but we could never in the name of morality make an absolute claim either upon ourselves or upon others" (p. 304)—we could never justify self-sacrifice. The other alternative alone affords an adequate basis for the highest morality. The good man "is the man who makes the point of view of the whole his own point of view, and judges himself and others from that wider point of view" (p. 307).

We here pass over to the subject of Book V., 'The Will as Moral'. Chapter xiii. first gives a general account of goodness as coherent social willing, and then discusses shortly the topics of rights and duties, the concept of duty, moral rules, and moral virtues. There is a short paragraph on Kant, which is not free from the usual defects of idealistic criticism of his doctrine. To say that for Kant "the natural desires of men seem to play no part in the good life" is either a truism or not true. Chapter xiv. discusses first the nature and value of moral judgment, then the question as to a criterion of morality, and finally illustrates the doctrine expounded by touching upon some questions of present-day practice and in particular that of war. In connexion with this last topic Mr. Paton shows less than his usual moderation and caution when he characterises war " unless waged against an aggressor " by the objectionable phrase "nothing but wholesale murder," and affirms that " wars arise simply through the wickedness and stupidity and passions of men " (p. 373). Did, e.g., the American War of Secession arise simply through wickedness or stupidity or passion? Chapter xv. (wrongly numbered as xiv. in the chapter heading) deals mainly with the questions involved in Self-Sacrifice, and Chapter xvi. with the questions that arise at the higher margin of morality, the questions that the reformer and the revolutionary have to face, the conception of an ideal society,

and the questions connected with the religious consciousness and the relation of morality to religion. In the last few pages of the book Mr. Paton is inevitably dealing in the briefest compass with very large questions and is sometimes too brief to be quite clear. I will refer only to one point of principle in the first part of the chapter. " We may assert nowadays with confidence," says Mr. Paton, " that the coherent whole which the good man seeks to realise and to express through and in his life is a wider whole than that of the nation state " (p. 411). The statement is open to different interpretations, and is in fact immediately qualified. A similar statement on the next page raises a more definite issue. " As a man may have to set aside the wishes and even the interests of his family in the service of his country, so too he may have to set aside the wishes and even the interests of his country in the service of the world. The principles are the same in both cases." Mr. Paton may say, if he likes, that the principles are the same, but, if so, the circumstances of application are profoundly different. ' The service of the world,' is a phrase which contains a huge assumption. The family and the State are definite moral entities, but what is ' the world ' and what is its service? Yet Mr. Paton appears to regard his statement as one of those " elementary moral truths " on which " in the twentieth century it should be unnecessary to insist ". We must at any rate add that there are also relevant moral and political facts which it should be impossible to overlook.

As I am in general agreement with ' the great tradition of English idealism ' which Mr. Paton follows, my criticisms will relate to the special form of his version of idealistic doctrine. I begin with some remarks on the general character of his version and on his method of exposition. Mr. Paton of course accepts the fundamental idealistic doctrine of the unity of mind and its object—in this case the unity of will and its object—but in the actual formulation of his theory he throws the whole stress on the side of the will. The result is that his exposition deals, as far as possible, with the formal or subjective side of conduct only; that is to say, with willing primarily, and with objects or ends only as the correlative factor, always implied of course, but referred to only for purposes of illustration. I might put my point in a rather exaggerated way by comparing Mr. Paton's book to the second part of Hegel's *Philosophy of Right*—Die Moralität— detached from the other two parts. Now there is, of course, no reason why the formal or subjective side of conduct should not be studied for itself, but I rather think that Mr. Paton takes his book to cover the whole ground of ethical theory proper. He speaks of giving a statement of the ethical theory which he believes to be true (p. 20), and I think that his view does really involve a narrow restriction of the scope of ethical theory. He may of course say that ethical *theory* cannot go further (*cf.* pp. 18, 19), just as logical theory cannot give us science. This comparison suggests another way in which I can state my impression of Mr. Paton's book. He seems to be more

interested in the logic of ethics than in ethics itself.   His interest is
really in the logical doctrine of coherence as applied to the will.
The union of this logical interest with the restriction to the subjec-
tive side of conduct gives a very distinct character and unity to the
book ; a single and rather restricted theme is elaborated very fully.
The reader may eventually feel a certain monotony in the theme in
spite of the variations which are involved in considering the will as
social and as moral.   And he would probably feel it more, were it
not that Mr. Paton shares the merit, conspicuous in some of the
ृeat idealists whom he is following, of always keeping in view the
concrete realities of human life and moral experience.   One feels
nearly always that it is the concrete reality he is dealing with, though
he deals with it on its formal or subjective side.

     In his plan of exposition Mr. Paton has adopted the method of
working from the most meagre and abstract phase of willing
towards the full reality of the social and moral will.   It was perhaps
the most natural method to adopt, but it has its dangers.   One is
that we are all far too prone already to take the Individual Will in
abstraction and need no encouragement.   Of course Mr. Paton
warns the reader from time to time not to forget that an abstraction
is being made.   But he himself keeps up the abstraction to the last
possible moment.   Even in discussing the will as social he keeps
as long as possible to the point of view from which " my social
actions and the social actions of others are good to me in so far as
they cohere with and enrich my individual policy of life " (p. 301).
It is only in the last resort, and under pressure of the problem of
self-sacrifice, that he passes over to the point of view from which
the goodness of the individual belongs to him " primarily when he
wills to make himself a vehicle of the goodness of the whole, when
he wills his actions and determines his life as an element in the
wider co-operative activity of the whole " (p. 307).   The method of
exposition seems thus to be in danger of distorting the true propor-
tions of the facts.

     I come now to criticisms of a more substantive kind.   The
matters to which I shall refer are all closely connected, but some
have a more psychological, others a more ethical, bearing.   One of
my difficulties is that I am unable to derive from Mr. Paton's
exposition any clear view of what he takes the nature of the will to
be or how willing is related to knowing.   Now it might be said
that these are matters of psychology, that the moralist is not
concerned to attain psychological precision in such matters, and
that it is enough if we know quite well in practice the class of
facts which the term will denotes.   But Mr. Paton does not ex-
plicitly take this line, he discusses these matters in several places
to some extent, but leaves them in a state which I find vague and
confused.   He seems sometimes to identify the will with mental
activity in general.   " To cease from willing—including that will-
ing which is also thinking—is to cease to be.   It is in activity
alone that the self is and enjoys its being " (p. 108).   But obviously

for ethical purposes we must have some narrower conception of willing than this. And usually Mr. Paton makes " the common-sense assumption that there is willing as well as knowing " (p. 68). But each involves the other. " Knowing seems to involve selection and discrimination and attention, that is to say it involves will " (p. 101). (Are discrimination and attention necessarily voluntary?) Similarly, " we cannot will without some kind of knowledge. Will-ing is preceded and accompanied by knowledge of an object, which perhaps should be called knowledge of the situation ; and without knowledge of a situation it is difficult to believe that there could be anything like willing as we know it " (p. 102). On the other hand, Mr. Paton also says that " we may accept it as a fact for which we have grounds in our own experience, that we sometimes, on per-ceiving things of a certain kind, feel and behave in a certain way . . . without having learned to do so by previous experience," and that we then have " what may be reasonably called genuine action or volition of the most elementary kind " (pp. 95, 96). (Against which we may set the psychological truism that movements cannot begin to be made voluntarily until there has been some experience of making them in an involuntary way—to make movements volun-tarily presupposes, *e.g.*, some experience of the fact that the bodily organs in question are movable.) Mr. Paton definitely rejects (p. 67) the view that willing can be resolved into " the idea of a bodily movement followed by a bodily movement ". If, however, the view is taken to mean, as it surely must be, that the idea of the move-ment is the idea of a movement initiated by ourselves (and not merely taking place in us), and that this idea is (causally efficient in producing and) followed by the movement, then the example used by Mr. Paton to justify his rejection of the view is quite beside the mark. " When the doctor taps our knee, we anticipate the resulting jerk without thinking that we will the movement." For that matter, even if we tapped our own knee, it would not be the jerk that was willed, but the tapping. Mr. Paton further says that " in many cases we believe that we have willed, when we have not anticipated anything at all " (p. 68). But, passing over this contention, we may ask, in regard to the ordinary case in which there is an idea of our initiating the movement and then the move-ment itself, What more is required? Perhaps Mr. Paton would answer : The will itself of course. But the difficulty then is to see what specific psychological fact or process the word ' will ' is meant to indicate. Without suggesting further answers or attempting to pursue the argument, I would point out that the conception of the will as ' the self-realisation of an idea ' has very respectable ideal-istic support. The whole tendency of idealism, indeed, has been to identify the will with practical thinking. Mr. Paton himself speaks of " practical reason or reasonable will," but with him such ex-pressions, so far as I remember, are infrequent ; and some of the connected statements are not easy to interpret. " The will," he tells us (p. 161), " has its own rationality which is relatively inde-

pendent of the rationality of thinking." This may mean merely
that morality is not science. But more probably rationality here
means coherence among particular volitions, and we have then to
inquire how far these particular volitions express any intelligent
apprehension of good. This inquiry brings its own difficulties.

Mr. Paton has "felt it necessary to protest against intellectualistic
views, which speak as if the will had to wait upon the commands of
a purely intellectual activity, before it can act morally or attain to
any kind of goodness" (p. 29). So far as this means that ethical
reflexion presupposes moral action, and, more generally, that re-
flexion upon conduct presupposes the conduct which is to be re-
flected upon, we shall all, of course, agree. But the question as to
the intelligent or non-intelligent character of the conduct itself, and,
more especially, of the particular volitions, remains to be settled.
And on this question I cannot be sure what Mr. Paton's view is.
Perhaps he would object to my fastening upon the particular volition,
when his whole doctrine is that goodness is a matter of coherence.
Here we come upon another difficulty which I must be content to
deal with briefly. I am not asserting any kind of absoluteness for
the particular volition, nor asserting that it is a sheerly immediate
activity. I am merely assuming (1) that in analysing any coherent
policy we must come somewhere to particular volitions that cohere
(and that are not merely the willing of *means*), (2) that the goodness
of the coherent policy cannot be due to the coherence taken in ab-
straction from the content of the volitions, and that in fact there is
no such abstract coherence. The coherence, in short, must be a
coherence of values; coherence cannot create value in a material
that has no value anywhere in itself. (Mr. Paton does not seem to
see this and perhaps would not agree.) The particular volitions,
then, cannot be mere facts, mere blind or instinctive propensities,
but must themselves involve some sense of value. Mr. Paton
sometimes seems to affirm this. "Willing is something more than
a fact or event. . . . It is an activity which we enjoy, and which
by its very nature imposes obligations upon itself and gives rise to
the distinction between good and evil" (p. 54). And, more dis-
tinctly, in the following passage: "Every perception must contain
some truth, for otherwise it could not be false; but similarly every
desire must contain some good, for otherwise it could not be evil"
(p. 395). But his statements usually point the other way; he insists
that "it is the will which is primary and the judgment of value
which is secondary" (p. 158), and that "as soon as there is a judg-
ment of value there is something more than mere willing," and that
"the judgment of value, so far as it is a judgment, succeeds the
willing and does not precede it" (p. 128). The judgment of value
depends "on the presence of a definite will to pursue" the object:
in elementary cases this is obvious, *e.g.*, "a child plays with toys
because he wants to, and it is because he wants to that the playing
with toys is good to him. . . . In the end we must always come
back to the attitude of the will, and it is the attitude of the will

which determines whether or not the thing is good to the particular person concerned " (p. 159). These contentions are sometimes slightly qualified. " It may be that there is an immanent judgment of value in all our imagining and thinking and willing. . . . Each of these is striving to be itself and . . . is conscious of success or failure in what we may call some kind of feeling. In striving to be itself it is guided by some sort of immanent ideal" (p. 129). " We make and then we judge. Even if there was some sort of judgment present in the making, it was not clear to itself as judgment. It was when God had made the world that He saw that it was good " (which seems, by the way, a somewhat irreverent reading of the text) (pp. 129-130). But, on the whole, Mr. Paton's view seems to be that volition precedes any judgment of value. " Elementary willing goes straight to its object. . . . It is a mistake to imagine that every action is preceded by a judgment of value. . . . If we reduce things to their simplest elements . . . the judgment of value succeeds action and does not precede it " (p. 103). To me this seems to involve an inversion of the true order of things so far as intelligent action is concerned. Broadly speaking, we pursue objects because they seem to us good, and we cannot *will* to seek a good unless we have already in some fashion experienced the goodness of that kind of good. And this is true, I should say, of the most elementary willing that deserves the name. To say that " a child plays with toys because he wants to " is a perfectly empty statement; he plays with them because there is something about them that interests him, otherwise he flings them aside.

We are here brought to the final, and, I think, fundamental difficulty in Mr. Paton's doctrine, *viz.*, that he refers all goodness to the will as distinguished from its object. He tells us, of course, that all willing must have an object and that willing is nothing apart from its object (pp. 101, 55). But " the central hypothesis " of the book is " that goodness belongs to willing so far as willing is coherent with itself, and that the goodness of things is entirely subordinate to that of the will which wills them ['things,' therefore, here = objects of will generally] " (p. 55). Now it seems to me (1) that, on idealistic principles, we cannot make this kind of abstraction, and are concerned always with willed objects, (2) that, since within this complex the will is a purely formal factor, everything specific about goodness must depend upon the objects willed (*cf.* Green, *Prolegomena*, § 154). To use the obvious analogy, all truth is truth for an intellect, but every specific truth is a truth about objects. The language in which Mr. Paton habitually expresses his theory[1] seems to ignore these truisms, and yet sooner or later we must surely come back to them. When Mr. Paton says " Things are good for a purpose and good for a person, and it is in relation to the will of the individual that they are

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[1] At a comparatively late stage of his argument he speaks of ' concrete willings ' (p. 344) and of the will as ' the concrete unity of subject and object ' (p. 347) ; but he also still argues (p. 343) that " Goodness is not to be found in objects but in the coherence of the will which wills them ".

good and bad," and "The goodness of objects depends on the kind
of will which wills them," I can accept his statements without
difficulty, because the things or objects in question may be instru-
mental, but then I must go on to ask, Wherein consists the goodness
of that will or that kind of will?   And if Mr. Paton answers, In its
own coherence : " the coherent will alone is concretely good ; it is
the source of the goodness of objects or things " (p. 180), I must ask
again, What is meant by this coherent will?   And to me the only
possible answer—apart from Kant's, and Mr. Paton is not a Kantian
—seems to be, A will that wills a coherent whole of objects that are
not merely instrumental.   The concrete good lies in the fact that
a will attains objects (or realises itself in attaining objects) that are
worth striving for ; by striving for them it does not make *them* good,
but *itself* good.   It is not the case that " our will makes things good
or bad " (p. 185).   The analogous statements about the intellect and
truth are obvious, and, if we believe in the objectivity of good, there
can be no difference in principle between the two cases.   There is,
however, in the case of goodness this additional reason for emphasis-
ing the subjective factor or reference to the will, that the will in
question (whether individual or general) defines the scope of the
whole of objects that is to be willed.

The want of clearness, and, as I think, the errors, to which I have
now drawn attention, are drawbacks from a logical point of view,
but I do not think that they greatly affect the value of the exposition
which Mr. Paton gives of the two principles (1) that the value of
the individual's life (considered in abstraction) is to be measured by
the degree in which he succeeds in uniting its policies into a coherent
policy of life as a whole, (2) that the moral value of the individual's
actions and life is to be measured by the degree in which he co-
operates with other members of his society in achieving a coherent
social life.   The unity, concentration, and fulness, with which the
central argument is worked out, place the book on a very different
level from the text-books, and give it a different interest and value—
the interest and value of a systematic exposition of a type of ethical
theory.   It is for this interest and value especially that the work is to
be commended to the reader.   The book is not likely to have the kind
of success which a text-book can often achieve—the absence of con-
troversy and criticism of other theories, and the difficulty of detach-
ing parts and topics within the whole, will stand in the way—but it
deserves success of a much higher kind.

<div align="right">H. BARKER.</div>

Geschichte der Alten Chinesischen Philosophie.   Von ALFRED FORKE.
Hamburg : L. Friederichsen & Co., 1927.   Pp. xvi and 594.   M. 36.

THE reputation of Chinese philosophy has since the eighteenth
century always stood very high in Europe.   It has even been
assumed that every Chinaman was in some sense a philosopher.

This notion still pervades picture-catalogues. A Chinese painting of a man sitting under a tree will always figure as 'Philosopher meditating,' a man reading a book is called 'Sage studying the Classics,' and so on. It will therefore come to Dr. Forke's readers as somewhat of a shock to find him saying on page 1 that until recent times philosophy in our sense of the word ('eine Erforschung der Wahrheit nur um der Wahrheit willen') did not exist in China.

Another well-worn belief—that Chinese culture and thought possess an enormous antiquity—also finds little support in this book. Hardly a text in the period under review (roughly from the sixth to the third century B.C.) but has been by one authority or another dismissed as a forgery. Not that the value of a book necessarily depends upon its being what it pretends to be. But all attempts at history—at the tracing of any sequence or development—becomes hopeless if at every turn the authenticity of the documents must be questioned.

M. Marcel Granet [1] of Paris (who, incidentally, believes so little in the traditional notion of China as a land of Sages, that in a recent lecture he described Chinese culture as predominantly æsthetic rather than intellectual) has abandoned all attempts at a chronology of ancient Chinese thought. For him forgery, in the sense of invention, does not exist; the ancient text and the modern draw their material from a common stock of oral tradition. This method of study, unchronological and unhistorical, has yielded very interesting results in M. Granet's own books. But its application is necessarily limited. At a certain moment, for example, in the history of Chinese literature, individual fantasy must intervene; the Chinese did not remain permanently incapable of invention. Moreover, from a comparatively early date (though one which lies beyond the scope of Dr. Forke's book) China was in contact with a stock of legend far more fertile and complicated than her own. If we are trying to reconstruct early Chinese mentality we must be certain that our sources are not under the influence of some wholly exotic mode of thought, such as Buddhism.

The great disadvantage of the present book is that, with regard to the vital questions of chronology and textual authenticity, it takes a position of compromise. Dr. Forke is very far from adopting Granet's method. Questions of text and date are by no means indifferent to him. But he never examines them with sufficient thoroughness to arrive at any conclusion of his own. He is content merely to set side by side a number of varying opinions, never indicating that these opinions are of extremely unequal value. On page 312, for example, he quotes the view of Su Shih (eleventh century) that two chapters of Chuang Tzu cannot be genuine, because in them Confucius is spoken of with disrespect. Now Chinese textual criticism is not all of this kind; but an argument such as this is apt at any moment to appear, and European scholars not

[1] See particularly, *Danses et Légendes de la Chine Ancienne*, 1927.

infrequently base their opinions upon native conclusions that have been reached by a process of reasoning which no European could accept.

Let us take a few examples of Dr. Forke's attitude towards his texts. With regard to the *Book of History* he is content to tell us that Pelliot and many modern critics believe the Old Text to be a forgery (of the third century A.D.), whereas James Legge believed it to be genuine. The two judgments are set side by side as though they were of equal value. It does not seem to occur to the author that Legge wrote sixty years ago, when sinology was in its infancy, and that Pelliot's judgment, unfavourable to the Old Text, is based upon a host of facts that were inaccessible to Legge. No doubt the forger drew upon both written and oral sources; but there is no reason to suppose that he did not also in many instances simply invent.

Another example, more directly connected with the history of philosophy, is the chapter on Lao Tzu. There is a general agreement among modern scholars, at any rate in France and Japan, that the *Tao Tē Ching* belongs to about the fourth century B.C., and that the existence of such a person as Lao Tzu (its supposed author) is problematical. Thus Maspero, in his *Chine Antique*, says: ' C'est probablement vers les dernières années de Mo-tseu qu'il faut placer l'auteur inconnu d'un petit ouvrage intitulé *Lao-tseu*.' And again: ' On ne sait absolument rien de l'auteur du *Lao-tseu*. Je dis le *Lao-Tseu* parce que s'il est certain qu'il y a eu un livre de ce titre, il ne l'est nullement qu'il ait existé un personnage à qui ait été donné le nom.' Dr. Forke is not, of course, bound to share this scepticism. But it is irritating that he should, while apparently believing both in the early date and historicity of Lao Tzu, give no reasons of his own for doing so, but merely quote the attitude of ' Deutsche Forscher ' in general. This attitude ("the ' hohe Genialität,' of the work makes it impossible that it should be late and anonymous ") is to me incomprehensible.

With regard to the *Yin Fu Ching*, a Taoist work that is supposed to be earlier than Lao Tzu, Dr. Forke is less non-committal, and though he does not, like the Chinese, attribute the book to the mythical Yellow Emperor,[1] he certainly accepts it as ancient. Maspero, in his account of early Taoism, makes no mention of this work; Chinese critics usually assign it to the middle of the eighth century A.D. Dr. Forke describes this little pamphlet as ' *wertvoll* '. But surely its interest depends on what it means. He is pained that some Chinese should have taken it to be a treatise on war.[2] As a matter of fact, it has also been explained as a treatise on alchemy; while Hsieh Wu-liang, a modern writer, sees in it anticipations of Darwin !

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[1] Fourth millenium B.C. !

[2] But war, to the ancient Chinese, was a magic ritual. One would not expect, in a treatise on war, necessarily to find any reference to strategy or tactics in the concrete sense.

Dr. Forke's book suffers also from certain inexplicable omissions. Our knowledge of the earliest Chinese culture was immensely enriched in 1899 by the discovery of inscribed bones dating from the eleventh and tenth centuries B.C. 'Grâce à ces inscriptions,' says M. Maspero, 'la dynastie Yin sort un peu de la brume où elle se cachait.' Dr. Forke devotes considerable space to the Yin dynasty, but to the 'oracle bones' which teach us so much about early religion and social life, he does not refer at all.[1]

Attention was called by Dr. Hu Shih in his *Logical Method in Ancient China* to a curious parallel between the paradoxes of fourth century B.C. Chinese 'sophists' and the famous arguments of the Greek philosopher Zeno (born 494 B.C. ?). First there is an unintelligible paradox about a tortoise (Achilles, of course, does not figure). Then the statement that an arrow in flight is 'at rest as well as in motion'. Then this remarkable parallel with Zeno's second argument against motion : 'If a rod one foot in length is cut short every day by one half of its length, it will still have something left even after ten thousand generations.' Dr. Forke quotes these parallels, but to the question of a possible Hellenic influence on Chinese thought, one of the most interesting in the history of philosophy, he makes no reference at all.[2]

There is in the book an admirable tendency to avoid premature generalisation. But it seems sometimes as though this is due to the fact that Dr. Forke has not even realised the existence of the general problems which emerge from his theme.

The most important aspect of Chinese philosophy is ethics, and to the Chinese the most important part of ethics is the regulation of conduct towards parents. Whence the unique preponderance of filial piety in their conception of right behaviour? The usual European answer has been that the cult of filial piety is due to ancestor worship. But many other peoples have worshipped ancestors without setting up duty towards parents as the goal of a moral life. It is to such questions as these that Dr. Forke, losing himself in a maze of detail that tends to turn his book into a work of reference rather than a history, fails to give adequate attention.

The difficulty of studying early Chinese thought finds a close parallel in the history of Judaism. Just as in Chinese literature every ancient text that survives has been edited, expurgated and adjusted by pious Confucians, so too the Scriptures of the Jews are known to us only in the form given to them by the monotheistic worshippers of Jahveh, and all other cults are mentioned solely as subjects of invective. Fortunately the Jews were colonisers, and from the Elephantinë papyri we know that there were Jews in Egypt in the sixth century B.C. who without the slightest scruple

[1] Though fraudulent imitations have found their way on to the market, there is no doubt as to the authenticity of the original find.

[2] It is also worth considering whether Hsing 'element' has a connexion with the Greek στοιχεῖον. The Chinese word, if pronounced in the 'departing tone' means 'a row,' as of houses, soldiers, wild geese in the sky, etc. ; as does also στοιχεῖον.

or compunction were worshipping a variety of gods and goddesses, as their fathers had done before them. Could we unearth the archives of a sixth century Chinese colony we should find our conceptions of ancient China disarrayed in a manner equally sensational. Chinese literature, however, suffered from another great disaster which finds no counterpart in the history of other countries. In 213 B.C. the First Emperor of the Ch'in Dynasty ' burnt the books '. How completely the destruction was carried out is very uncertain, but putting aside the question of what was lost, the Burning of the Books had a secondary effect that was disastrous to the fragments that remained. All confidence in the accuracy of the texts was lost. They were supposed, in many cases, to have been transmitted orally, from memory, and every scholar felt at liberty to stigmatise as an interpolation any passage which differed from his conception of what a holy book ought to be. There was thus a constant effort to bring the ancient texts into line with the prevailing state of consciousness. It was an axiom that the Three Ages [1] were 'holy' and instead of being prepared, as we should be, for a lower standard of sensitivity in primitive times, the Chinese expected from their forefathers a higher degree of civilisation than they could boast of themselves. For this reason the *Tso Chuan*,[2] one of the most interesting documents for the study of early China, is held by many orthodox Confucians to be a forgery, merely because it faithfully depicts an epoch of savagery. The *Chou Li*, a ritual of Chou (the third of the Three Ages) is dismissed as an invention of some late political theoretician because the state of society that it describes does not correspond to a purely *à priori* conception of these sacred times.

Vast quantities of books are lost altogether, and it is only when we look at lists and catalogues (such as the list in *Pao Po Tzu*, fourth century A.D., of Taoist works, hardly one of which has survived) that we realise the importance of practices and beliefs alluded to occasionally and remotely by the works that remain. For example *tso wang* ' sitting and forgetting,' a practice similar to Indian *dhyāna*, had evidently assumed in non-Confucian circles an importance that explains the subsequent rise of the Dhyāna sect[3] in China.

We are accustomed to regard the Chinese as a comparatively primitive people. Lévy-Bruhl constantly cites them as such in his works on primitive mentality; and we are accustomed to regard homogeneity of outlook and belief as characteristic of primitive peoples. It has, then, been noted with surprise that from the earliest period there existed a sort of intellectual diarchy in China. There were the Confucians who taught men how to live the life of the herd, and the Taoists who taught them how to live detached from the herd. But both schools rested upon the same fundamental idea—the conviction that there is in the universe a great store of

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[1] Hsia, Shang and Chou (third millenium down to the fifth century B.C.).

[2] The amplification of Confucius's famous ' Springs and Autumns '.

[3] A purely Chinese variety of Buddhism, traditionally supposed to have begun in the sixth century A.D., but not traceable before the seventh.

power which we can get use of by adjusting ourselves to the fundamental laws of the universe. The Taoists sought to achieve this harmony by practices closely resembling those of the Indian mystics —by diet, above all by procuring that most precious of all diets, the Great Alchemical Medicine, by control of breath, ending in a respiration as gentle as that of a child in the womb, by purifying ordeals such as mountain-climbing. It was with the *tao* (latent power) of nature that the Taoists sought chiefly to harmonise themselves. The Confucians, though they also pursued *tao* in the larger sense, specialised in the search for harmony with one particular aspect of nature, namely the Social Structure. Conduct entirely in agreement with the pre-ordained and unalterable laws of this structure sets free within the individual a fund of power that makes him in every task that he undertakes superior to his rivals. Thus when we read that a man was summoned from some obscure village and given a place in the Government solely because of his filial piety we must not regard his elevation as an exaggerated reward of virtue; we must not suppose that he has been chosen, as Hannah More might have selected an under-gardener of similar reputation, ' to set a good example '. It was not to confer a mark of approval but to enhance his own power that the Emperor collected from the remotest corners of his realm every subject who had triumphed over the difficulties of domestic life. And while the Taoist scaled precipitous mountains or subdued his breath to a point at which a feather held before his mouth did not move, the Confucian, with exactly the same end in view, learnt to cherish his step-mother.

With these two systems, not different in origin and often tending to converge, the history of Chinese moral philosophy begins. But suddenly in the fourth and third centuries begins (or so we vaguely surmise) a period of intellectual activity which appears to be quite isolated in Chinese history. But so damaged are the texts that we can only catch disconnected glimpses of their significance. We seem to recognise the débris of a logic, an epistemology; we find traces of an interest in optics, mechanics, geometry. But all these studies lay outside the sphere of Confucian orthodoxy and were neglected or suppressed until the books which dealt with them were both so unfamiliar in their context and so corrupt in text as to be completely unintelligible. Modern scholars have rescued from these ruins a few precarious suppositions and conjectures. Among those pioneers Dr. Forke[1] was himself one of the foremost. It is upon this period (the third century B.C.) that he has done his most valuable and original work; and it is here that his book stops. Beyond lies the Ch'in dynasty, a blank so far as thought is concerned, and after it the Han, with a literature that European scholarship has hardly begun to explore.

[1] *The Chinese Sophists.* (Journal of the Royal Asiatic Society, North China Branch, 1896-97.)

A. WALEY.

VII.—NEW BOOKS.

Realism : An Attempt to Trace its Origin and Development in its Chief Representatives. By S. L. HASAN. With a foreword by J. A. SMITH. Cambridge University Press, 1928. 16s.

Dr. Hasan's purpose is to trace the development of realism from its origin in the common consciousness of man to its fulfilment in the philosophical writings of Prof. G. E. Moore. It is not an easy book to read. Not only is the style heavy, but the method of presentment is unfortunate. On the one hand he seems to view the development of realism as a continual battle between opposing views, in which there are various " enemies " to be overcome. On the other hand, he regards it as an Hegelian dialectic the final synthesis of which is achieved by Prof. Moore.

The origin of realism is to be found in the conviction of common consciousness that there is a real external world, or, as Dr. Hasan puts it, " Man believes in the existence of the world and its direct perception by a necessity of his nature " (p. 2). This necessity of man's nature is then referred to as the " realistic instinct," which is said to involve " two main theses : the reality of the external world and the direct revelation of it to our sense-apprehension ". To say that the external world is real is to say that it exists independently of us. But this independence is of finite mind, not necessarily of infinite mind. Realism has nothing to say to the view that there " may be an infinite mind, say God, who holds the whole universe of men and things on the palm of his hand, and on whom it depends for its being and its nature ". Subjective idealism is said to be the only metaphysics that is inconsistent with realism, whilst " objective idealism is but realism plus the hypothesis of an infinite subject " (p. 9). Thus realism is treated as a theory of knowledge, but Plato, Aristotle, Spinoza, Hegel, and Kant are all said to be realists. This seems a curious conclusion. It is difficult to see what definition of *realism* could justify the classing of these philosophers in one group with the authors discussed in this volume. Moreover, it is hardly possible to separate Plato's theory of knowledge from his metaphysic, and to regard the *latter* as " realism ". Certainly Dr. Hasan has made no attempt to justify these contentions.

Although realism has its origin in the " unconscious convictions of man," these convictions must be questioned before realism as a philosophy can be established. On the one hand, the epistemological doctrine of representationism denies the directness of perception—one main thesis of realism ; on the other hand, the metaphysical doctrine of subjective idealism denies the independent reality of objects—the other main thesis. Dr. Hasan conceives the development of the doctrine as consisting first in the exclusive assertion of one thesis, then in the exclusive assertion of the other. The difficulty is to combine them. But until they are combined, realism as such is not achieved. Accordingly, his exposition falls into three main divisions, with smaller sub-divisions. The beginnings of realism are found in Descartes, Locke, Reid, and Hamilton. They, however, fail to secure the directness of perception. The modern movement

begins in Schuppe, Mach, and Avenarius who, however, do not succeed in making the object of perception independent. Meinong, Stout, and the American "Critical Realists" are grouped together. They overcome subjective idealism, but do not succeed in overcoming representationism. Dr. Hasan's mode of dealing with these philosophers is well brought out in the following quotation: "The first [of the series of unsuccessful attempts] (Descartes, Locke, Reid) asserts only the existence of objects; the second (Schuppe, Mach, Avenarius) emphasises only the directness of perception; the third (Meinong, Stout, "Critical-Realists") aims at being a synthesis of both these movements, only the aim falls short of attainment. The attempt, however, succeeds in bringing out the paramount necessity of combining both the moments; it repeats more clearly and at a higher level the need which Reid had felt" (p. 45).

Realism proper "starts with Moore at the beginning of the century" (p. 107). The contest is now regarded as centering in the conflict of thought and sense. This conflict is said to give rise to three species of realism: (1) the rationalistic realism of Cook Wilson, Prichard, and Joseph; (2) the empirical realism of Alexander, E. B. Holt, and Bertrand Russell; (3) the critical realism of Moore, Dawes Hicks, and Laird. These writers are treated in this order, much the greatest amount of space and attention being given to Prof. Moore. Dr. Hasan's exposition is difficult to follow. Those who are not familiar with the writings which he criticises may find it difficult to grasp what exactly are their authors' views. This is particularly the case with the Oxford group of realists, since Dr. Hasan expounds their views by means of critical comments on papers which they have written about each other. The exposition of Alexander is also very obscure, being too much encumbered by disconnected criticisms.

Prof. Holt is taken as the chief representative of American neo-realism. His views are more clearly expounded, but Dr. Hasan's criticisms seem to show some failure to grasp what exactly Holt's view is. Thus, his criticism of Holt rests on the assumption that consciousness *must* be awareness, which is, of course, what Holt denies. He fails to see that, for Holt, the difference between subject and object is a difference in the context in which the same entity occurs. Hence, it cannot be considered that Dr. Hasan establishes his contention that Holt's doctrine is incompatible with realism. This suggests that, after all, it is not very clear what "realism" is, in spite of the care with which Dr. Hasan attempts to define it.

The criticism of Russell is peculiarly inept. No doubt there are important affinities between Holt's views and Russell's, especially in the *Analysis of Mind*. But Holt's metaphysic is essentially based on a theory of subsistence—probably derived from Meinong and from Russell's earlier writings (*e.g.*, *The Principles of Mathematics*)—which Russell has now completely abandoned. Dr. Hasan recognises that Russell's later views are not in accordance with those of Meinong and Holt, but he does not seem to realise how far-reaching the difference is. Nor has he apparently grasped the significance in Russell's philosophy of the principle of "constructions *versus* inferences". His criticism of the Frege-Russell theory of number shows a total misconception of their analysis. He re-asserts the common criticism that the definition of number is circular, and says, "But a one-one relation is conceivable only if the concept of the number 1 is already there. Moreover a one-one relation between classes signifies equality not by itself, but because of the identity of the concept 1" (p. 218). It is not a little surprising at this time of day to have these mistakes repeated. The footnote to this page, which asserts that "in defining number through the numerical equality of two classes, Frege and

Russell seem to be following psychology rather than logic," reveals a mis-
conception that can only be described as grotesque.

Much the longest section of the book is concerned with Moore's phil-
osophy. The defects of Dr. Hasan's method are most apparent here.
The various theories of Prof. Moore do not lend themselves to this
dramatic presentment. Dr. Hasan's exposition suggests that he has
failed to grasp the nature of Moore's *method*, and that he consequently
does not realise that the changes in Moore's views are largely the result of
a more and more rigorous application of that method. Indeed, Dr. Hasan
has nothing to say about the method of analysis. He sets out from the
assumption that Moore is essentially Kantian, and holds that " Moore's
thought seems to traverse, consciously or unconsciously, these three
moments of Kant's thought " (p. 231). Thus he fits Moore also into the
dialectic movement, and represents his development as consisting of three
stages : in the first, he is an idealist and a metaphysician ; in the second,
he is a " logicist," and goes beyond Kant ; in the third, he " turns to the
world of sense and asserts its reality explicitly and for itself " (p. 232).
The exposition of the " first period," is very confused, and throughout,
the conviction that Moore is a Kantian prevents Dr. Hasan from grasp-
ing some of his positions. Nevertheless, Dr. Hasan has rendered a valu-
able service to students of modern realism by giving such a full account
of Prof. Moore's writings. It is all the more valuable since Prof. Moore
has refused to republish, in accessible form, the articles which have so
greatly influenced contemporary philosophers. Dr. Hasan is perhaps the
first writer to have stated clearly the extent to which modern philosophy
has been influenced by Prof. Moore's views, even though he has failed to
realise the significance of his critical method.

The book is exceptionally well-documented. Dr. Hasan seems to have
read nearly everything that has been written by the philosophers whose
views he criticises. There is a very full and well-arranged bibliography.

L. SUSAN STEBBING.

Greek Philosophy Before Plato. By R. SCOON, B.A., Ph.D., Associate
    Professor of Philosophy in Princeton University. London : Milford
    (for the Princeton Univ. Press), 1928. Pp. vii + 353. 16s.

BESIDES its combination of competent scholarship with sound sense, Dr.
Scoon's book is remarkable for the quality of its writing. The presenta-
tion is made chaste and choice not only by a distinguished literary style
but also by the tacit scruples of a mind for which thinking is a moral as
well as a rational activity. Original ideas are brought forward with the
decency of quietness ; when a predecessor has to be corrected he remains
unnamed and the task is done with unemphatic argument ; and when a
thought calls for pregnant expression the brittle brilliance of epigram is
shunned. If all this is rare nowadays it is perhaps because philosophy
seems to be rapidly contracting from the love of wisdom to the exhibition
of abstract technicalities that neither require nor evoke a balanced moral
temper. It is particularly welcome to receive this example of disciplined
and elegant scholarship from the States.

The book is divided into two parts : the first discusses the early thinkers
in their due order, the second follows out the problems in their historical
development within the period chosen. The second part inevitably re-
peats much that is given in the first (indeed, its first, fourth and fifth
chapters largely repeat each other) and could for the most part have been
omitted without much loss ; but perhaps this repetition is tedious only

to a reviewer, who is obliged to read the book straight through. The second chapter of this part gives a summary account of early Greek science in order to show that it arose and developed among the philosophers, and to defend these from the charge of being merely speculative dreamers. Unfortunately this account reads like a catalogue and is entirely undocumented. There is an excellent index, which includes matters as well as names. The proof-reading has been almost impeccable: there seem to be only three misprints, all trifling—the omission of the last "i" in "scientific" on page 23, line 12; the omission of "c" in "Aeckern" on page 138, note 15; and in note 39, p. 172 πάντων has gone awry.

Dr. Scoon begins with a brief sketch of the oldest Greek views, popular as well as literary, of the world and man's place in it, but only to provide the cultural background against which the first philosophers must be seen, not to allege precedents abolishing the tradition that with Thales something new began. Their anthropomorphism is admitted and their moral and religious motives even emphasised, but it is pointed out that there is a big difference between an explanation in terms of the imagined behaviour of imagined gods and one in terms of the known behaviour of human beings, and that the moral and religious impulse remained an impulse, providing the force rather than the content of their thinking.

Xenophanes appears, as in Burnet, as having no connexion with Eleaticism, and as primarily a poet, though strongly influenced by the new Ionian cosmology. I should hesitate to accept the following as a statement of "the real point of Xenophanes' work," but it deserves quotation: "If the sun is really a collection of sparks, it is difficult to imagine it as a divine person. And if the world is one great god, the whole Olympian fraternity seems unnecessary. Xenophanes meant to substitute the scientific point of view for the traditional one, through the implication that when science has explained a thing, it is impossible to think of that thing in any but a scientific way" (p. 49). Of Heraclitus the author all but says what I should like someone to say roundly, that he was the first metaphysician. The exposition of Parmenides' system is fresh and convincing. What he did was to grasp the exigencies of proof, to feel for the first time the full force of logical necessity—if you grant this you must grant that. This is well connected by Dr. Scoon with the nascent rhetoric of the time, and Parmenides' procedure is accordingly described as an application of "the principles of rhetorical argumentation to cosmological inquiry." With regard to the "Way of Opinion" Parmenides is done the simple justice of being supposed to mean what he says, namely, that it differs from truth by having no truth in it. It was natural that the thinker who first became acutely aware of the fact of implication, with its imperious command, should deem all other facts irrelevant. The "Way of Opinion," according to Dr. Scoon, was intended as a description of the way we pass through before we come to truth. The thorny fragment τὸ γὰρ αὐτὸ νοεῖν ἔστιν τε καὶ εἶναι is read in accordance with Burnet's interpretation and, again with Burnet, τὸ ἐόν is taken as material, though Dr. Scoon entirely refrains from Burnet's extreme revolt, against Hegelian historians, in calling Parmenides the father of materialism.

The most novel feature of the book is the treatment of the obscurest of all the problems with which the historian of Pre-Socratic philosophy has to deal, Pythagoreanism. We are modestly offered the outline of a genetic account, which seems to hold the germ of a helpful contribution to the subject. The chief result is to raise Philolaus to the ranks of the conspicuous cosmologists of the age. The Philolaic fragments are reproduced in translation and their claim to authenticity is defended. It is unfortunate that Dr. Scoon has not expanded his work here, for we are greatly in need of an extended examination, especially in English, of the

Pythagorean question.   Even in German there is only, so far as I know, Frank's "Plato und die sogenannten Pythagoreer" (1923), and Prof. Robin has recently (in "La Pensée Grecque") declined to deal with Pythagorean-ism except as a whole.

The author thinks it a mistake to claim that in Atomism the cosmo-logical ideas of the Pre-Socratics find their consistent culmination : when judged not by its later fortune but by the range and mode of contemporary thinking the system of Anaximenes, not that of Democritus, is seen to be the most logical synthesis.   The point is argued with insight (pp. 206-211) and is offered as a new explanation of the standing problem why Plato ignored Atomism.

It is good to find the Sophists dismissed as not philosophers but "philo-sophical opportunists ".   Dr. Scoon adds a measured but severe condemna-tion of them even when considered simply as leaders of the popular humanistic movement, and notes that it is quite erroneous to regard them as representing a clearly marked humanistic interregnum between the old cosmology and Platonism, since the activities of Parmenides, Zeno, Empedocles, Anaxagoras, Archelaus, Diogenes, and Melissus all extend into (some, indeed, fall wholly within) the so-called Sophistic period. Further, almost all the early "cosmologists " were humanists in the sense of being concerned with a general view of human life, differing from the Sophists in ignoring not man but the *social* conditions of his existence. Partly on account of the first of these two points Socrates is treated rather in connexion with the cosmologists than with the Sophists.   Not that Dr. Scoon accepts the Burnet-Taylor view ; but he has clearly been influenced by it.   He attributes to Socrates the theory of Forms (and of their unification in the Good), Forms moreover as physical causes, and also the theory of knowledge as reminiscence.   Here Dr. Scoon has faltered in his usual thoroughness.   He does begin with a brief reference to the problem of separating the Socratic from the Platonic contribution, but absolves himself from dealing with it and falls back on the usual method of subjective choice against which the work of Burnet and Taylor was a much needed protest.   To take the Form of the Good as Socratic while holding, as Dr. Scoon does, that the Republic, of which the doctrine of the Good is the metaphysical climax, is predominantly Platonic, is an inconsistency that needs a reasoned defence.

To our exiguous literature on the early Greek philosophy the book is a delightful and helpful addition.   In the graceful urbanity of its literary form it comes near to the relevant works of Ferrier, Caird, and Adamson, and in content incorporates and continues the work of Diels and Burnet.

                                                                    T. E. Jessop.

The Technique of Controversy.   By Boris B. Bogoslovsky.   Kegan Paul. Pp. 266.   12s. 6d.

Mr. Bogoslovsky believes that many arguments used to-day are inefficient while others appear to be so although they are not.   This real and ap-parent inefficiency is due, it is said, to the fact that we have no adequate technique of reasoning.   We have failed to see that our reasoning processes are unlike those of the Greeks, and so have remained content with the logical technique of Aristotle.

Mr. Bogoslovsky insists that the technique required implies the rejection of previously accepted criteria for truth and falsity.   Hence in Chapter II. we are warned that we must not object to the new technique on the grounds that it is paradoxical, contrary to common sense, or hair-splitting.

In Chapter III. the nature of logic and its relations to other subjects is examined. Mr. Bogoslovsky's theory is unusual, while, to me, it remains obscure. He holds both that almost every logician has his own idea of what logic is and also that there has been no advance in deductive logic since Aristotle and none in inductive logic since J. S. Mill. Logic is classified as one among other "regions of experience" on the three-fold basis of subject matter, scope, and attitude. The resulting classification is strange. It contains ethics, as a normative subject of wide scope whose subject matter is "facts related to other facts," and logic as a normative science of limited scope whose subject matter is "statements related to statements". Among other subjects included in the classification are psychology, metaphysical speculations, and dialectics. According to Mr. Bogoslovsky most writers on logic have been concerned with the two latter subjects, a fact which, he says, explains the inefficiency of existing logics. Such logics are not techniques. Mr. Bogoslovsky's concern is to create the required technique. He believes that only by examining the character of actual processes of reasoning shall we discover the purpose which this new technique has to serve, and hence only so shall we know what kind of logic to create. Instead of making the desirable examination, however, Mr. Bogoslovsky reviews various sciences, contending that each implies four characteristics of modern thinking, namely, continuity, relativity, evolution, and an inclination to entertain various possibilities. Classical thought on the contrary was contemplative with no desire to control environment—a method of thinking adequately served by Aristotle's technique.

Mr. Bogoslovsky next examines Dewey's argument in *Interest and effort in modern education* as a sample of modern reasoning, in order to discern in it the requisites for a new technique. His contention is that Dewey's thinking implies the rejection of the law of excluded middle. It is difficult to understand why Mr. Bogoslovsky believes this. All that his examination of Dewey's argument reveals is that Dewey insists that certain concepts are not mutually exclusive, but these concepts do not, as far as I can see, include any which are contradictory.

Chapter V. is again concerned with the nature of modern thinking, but Mr. Bogoslovsky does not now generalise concerning this character as exhibited in different sciences, nor in particular thinkers ; instead, he turns to the psychology of thinking. He suggests that one formula is capable of representing any cognitive experience provided different values are assigned to the variables it contains. The most important implication of the formula is that any experience consists of a combination of new with old elements. The relative part played by each in any given experience is alleged to determine the inductive or deductive, the subjective or objective, character of experience. Having described the various characteristics of thinking Mr. Bogoslovsky believes himself in a position to formulate four principles of dynamic logic. It must suffice, here, to say that three of these principles are related to the combination of new experience with old, while the fourth is concerned with the quantitative expression of the relative parts played by different constituents in given experiences.

In the following two chapters Mr. Bogoslovsky considers the possible uses to which these principles may be put. Firstly, they may be used curatively—to prevent fallacies—thus if the first principle is violated nonsense results, while violation of the second, third, and fourth incurs intolerance, ambiguity, and vagueness respectively. Secondly, he considers how the principles can be used constructively in education. He suggests that they would (1) solve difficulties of various antinomies ; (2) supply a basis for intelligence tests for subjects of thirty years, whereas he contends that existing intelligence tests are only efficient for subjects

up to sixteen years; (3) make logic an indispensable part of educational curriculum.

Mr. Bogoslovsky evidently feels, in spite of these suggested applications, that he has not made the nature of his new logic clear, since in Chapter VIII. he returns to this question. He seeks to define his subject by showing how it is related to the work of Heraclitus, of Parmenides, of Hegel, and to each of six different kinds of logics. Perhaps one of the most interesting parts of his book is this six-fold classification of logics, and his reasons for not identifying dynamic logic with any member of the six classes. He finds most kinship with the logic of A. Sidgwick, while he expresses the hope that a dynamic logic with quantitative indices of all values between 1 and 0 may be created, having the merits of the symbolic logic of *Principia Mathematica* but lacking its inapplicability to any specific problem. Such a hope appears to rest on confusion; it is doubtful whether Mr. Bogoslovsky has considered the difference between a propositional function and its values. The book concludes with a brief consideration of certain implications of dynamic logic.

To one who accepts the law of excluded middle Mr. Bogoslovsky's undisguised contradictions are worrying, especially in the face of his dogma that the new logic, of which this book is presumably an application, cannot be refuted by that law.

E. M. WHETNALL.

Die Selbstverwirklichung des Geistes. By RICHARD KRONER. Pp. viii + 225. J. C. B. Mohr, Tübingen, 1928.

" A Phenomenology of Mind in 225 pages " is a not unfitting description of the scope and limits of this work. It has the explanatory sub-title "Prolegomena zur Kulturphilosophie," and is a systematic attempt to ground and understand the whole objective world of " Kultur " (Kultur includes everything which can be the object of history) as the necessary development of the simple fact of Consciousness. Consciousness is the ultimate datum beyond which no thought can go.

The process of this development is timeless and dialectic, and the process not only of " our " thought, but of reality itself : it is not part of the author's task to justify the idea of such a process, except of course by his application of it. A " dialectic " process is one in which the spirit (the use of this term is meant to indicate that the process is not one merely of the knowing mind) is forced from a prior stage to a later by the self-contradiction of the prior. The contradiction, the progressive overcoming of which is the life of the spirit, is in its most general terms that of Existence and Significance (" Sein und Sinn "), the real and the ideal : the contradiction that the given implies more than it is. This contradiction is present in the elementary fact of consciousness itself : consciousness implies at once knowing and being (this is made more obvious by the German term : Bewusst-sein), and yet consciousness barely as such is not what it knows and knows not what it is. It is impossible to give a summary of an argument, which is at this stage (pp. 17-64) itself compressed almost into a summary, and the recapitulation of a few headings must suffice. The spirit must reconcile its knowledge with its being : or it must know itself. To do this it must present itself to itself, or objectify itself. All stages of individual consciousness, from that of naïve sensation upwards, are successive attempts at this reconcilement through objectification. They show themselves successively inadequate, because the mind at this level sees in its object never itself (or never merely itself), but an

external reality; and the gulf between the mind as "I" and the mind as object remains unbridged. The individual body represents one of these stages; in it (as in each stage) a partial solution is reached. The body is at once "I and object"; it is at once wrought and fashioned by the I and known by the I as itself—but only to a certain degree. There remains in it a stubborn element, recalcitrant to the moulding will and impenetrable to thought, and the spirit is driven further on its path towards self-reconciliation.

We approach the central theme of this book when it is driven inevitably beyond the merely individual and forms for itself a "spiritual body" in that sphere of "Kultur" which Hegel first discovered and called Objective Spirit.

In this new sphere it continues its process of objectification, and the author distinguishes four main stages, on each of which the reconciliation is signalised as incomplete by being achieved in a duality of forms, corresponding to the old duality of consciousness-of-self and consciousness-of-object, and again to that of practical and theoretical consciousness. The stages are (1) the sphere of Economic Organisation and of Applied Science ("Wirtschaft und Technik": we may think of Plato's "City of Swine": this is the best part of the book); (2) State and Science; (3) Religion and Art; (4) Philosophy and History. The theory of Philosophy is in one respect worthy of especial remark. It is the task of Philosophy to review the other (in comparison naïve) efforts of the spirit at self-objectification, to understand how far they succeed and how far they fail in bridging the gulf: but in doing so it is itself solving the problem which they left unsolved, and this "reflective" reconciliation is the peculiar contribution of Philosophy to the self-realisation of spirit. Thus are explained two striking facts: that all typically modern philosophy is essentially "Kulturphilosophie" (its preoccupation with History is the sign of this), and that the whole vast realm of the objective spirit was only discovered (i.e., only became a subject of philosophy) so recently. The Greeks tried to reconcile Religion and State under Art, the Middle Ages all other objective forms under Religion; it is only since the breakdown of these two attempts that Philosophy has achieved the hegemony (v. p. 123). A further conclusion from these premises seems to be that Philosophy proper dates only from Kant (cf. p. 196)—a conclusion which is harder to accept.

The author expressly avoids attributing his views to their sources, wishing his argument to stand or fall by itself, but a review of the book would hardly be complete without a mention of its relation to the classical German Idealism. That it is grounded through and through upon the foundations laid by the latter, will be clear without further words; this alone rendered possible, e.g., the compression and brevity of the earlier stages of the deduction: a whole technical language, with all that that implies, lay ready for use. To Hegel (naturally from the nature of the subject) affinities are greatest, and they are very great. Hegel had partly stultified his great discovery of the objective spirit by identifying it exclusively with the state: thus the other forms of objective spirit presented him with an insoluble problem (cf. the embarrassment which Bradley in "Ethical Studies" and Bosanquet in, e.g., "Some Studies in Ethics" feel over the "Ideal Values"). Kroner corrects Hegel by removing this limitation, and thus making possible a proper systematisation of the sphere of Kultur. His treatment of "Wirtschaft und Technik" illustrates admirably his dependence on, and variation from, Hegel. His "Wirtschaft" is nothing else than Hegel's "System of Needs," or "Civil Society": an organisation for the supply of private wants, which implies and depends upon a superordinate reality (the state), and which, by the

mere fact of its *organisation* imports into itself an element of " Objec-
tivity," which contradicts its avowed end.   But Hegel does not notice the
complementary sphere of "Technik" (the most striking feature of the
modern world), which is devoted likewise to the supply of private needs,
but which in order to supply them must submit itself to scientific dis-
cipline, acquiring thus a character which is incommensurable with its
original end, and forcing thought in the same manner beyond itself to the
objective world of Natural Science, which thus takes its place beside that
of the state.   This correction of Hegel is of course far-reaching, but the
great problem before which the Hegelian Philosophy came to a standstill,
the problem of History, does not seem to be materially advanced by the
difficult last chapter of this book.

<div style="text-align: right">Michael B. Foster.</div>

Kant, sein System als Theorie des Kulturbewusstseins. By Reinhard
Kynast.   Verlag Ernst Reinhardt, Munich, 1928.   Pp. 229.   9 marks.

This book certainly gives a valuable exposition of many important features
of Kant's philosophy.   Perhaps the chief objection which can be urged is
that it in some degree "falls between two stools," since it is not quite
suitable either as an introduction to Kant or as a research work for
specialists.   It would not, I think, be of much value to anybody who was
not already fairly well acquainted with the philosopher, while it is too
general and its conclusions not well enough supported by detailed evi-
dence from the text adequately to fulfil the other function.   It can, how-
ever, very well serve the intermediate purpose of renewing and synthesis-
ing the student's impressions of Kant, and helping us to view details in
the light of more general principles.   But in any case it would be very
greatly improved by the addition of more frequent references to the actual
text, at least in the earlier part where the author is dealing with the
Critique of Pure Reason, and by summaries of the grounds for the lines
of interpretation adopted.   It also seems to me personally to give a some-
what misleading impression by overemphasising certain elements in Kant's
philosophy at the expense of others, thus failing to do real justice to the
agnostical tendency in Kant, and also to the place which was taken in his
thought by physical science and the anxiety to provide an adequate philo-
sophical foundation for this science.   This is perhaps more than anything
a question of emphasis, but it may none the less leave a student with
wrong ideas on the subject.   But, having said so much, I must at once
add that the book remains a very fine piece of work marked by lucidity,
skill, and comprehensiveness.

The fundamental conception applied is that of " Kulturwerte," a word
which can hardly be translated in English, "cultural values" being too
narrow for the purpose.   As used by the author the term covers all
intellectual, æsthetic and ethical values realised in society, including "the
good will" itself as the most important, though, as he admits, this is not
the usage of Kant.   In this wide sense of the term we find that the whole
of physical nature must be regarded merely as a means to the realisation
of " Kulturwerte," and that the significance of the Critique of Pure Reason
depends on it being a study of this means.   It is further discovered that
Kant's attempt to justify recognised moral duties by arguing that a law
which was in conflict with them could not be universalised is only valid
if we give as our ground for this view, not, as Kant does, that such a law
would be self-contradictory, but that it would prevent the realisation of
these " Kulturwerte " if made general.   Personally I should be inclined
to criticise both lines of approach, the first on the ground that it over-

stresses the importance of Kant's ethics for the rest of his philosophy, the second on the ground that once you make his ethics teleological in this fashion you have so fundamentally diverged from his view that it would be better to say frankly that you disagree with him than to talk as though the gulf were one that could be bridged by slight amendments. Kant's system is one which is less capable than most of being viewed as a "Theorie des Kulturbewusstseins". For the standpoint suggested by these words is primarily a social one, and one that lays great stress on values such as education, art, advance of knowledge. Now, firstly, Kant does not admit any value in intellectual or æsthetic goods except as mere means to morality or to happiness, and, secondly, his philosophy is essentially individualistic in character rather than social. Hence the attempt to look at his whole philosophy primarily from this angle seems to me almost bound to lead to distortion, for, however unfortunate and unwarranted we may think these omissions on the part of Kant, it is best frankly to recognise them as historical fact. Finally in dealing with Kant's views on religion the author makes him give to the immediate religious experience a significance which I should have thought he would have been one of the last to admit, and neglects to adduce much evidence in support of this disputable interpretation. But these are all differences of opinion, and do not make me feel any hesitation in recommending the book.

<div align="right">A. C. EWING.</div>

The Liberal State. By THOMAS WHITTAKER, B.A. With a foreword by the Rt. Hon. J. M. ROBERTSON. Pp. xxx, 159. London : Watts & Co. 6s. net.

This is a reprint, with some necessary additions, of a book published by Mr. Whittaker twenty years ago. It is described on the title-page as an 'Essay in Political Philosophy,' and its avowed aim is to give us the theoretical principles on which Liberalism, as opposed to other political creeds, can be held to rest. These Mr. Whittaker defines as Justice and Freedom, contrasting them especially with the 'Order and Progress' of Comte's Positive Polity, and less explicitly with the supposed principles of the other political parties. But he can never resist the temptation to digress ; and so, desiring to avoid the construction of Utopias and convinced that his ideal already to some extent exists, he is seduced into a long parenthetical chapter of Philosophy of History, in which he traces the development of the Liberal State from its origins in Greek Antiquity through its temporary eclipse in the Dark and Middle Ages to its revival in modern times, only to be threatened with extinction by the various rivals, actual and theoretical, which have emerged from the great war fought in its defence. And in the final chapters, deserting the past for the future but still digressing from the main issue, he expounds the policy which he thinks the Liberal State ought to develop on certain urgent practical matters such as Industry, Religion, and Education. The only part of the book which strictly carries out his intention of explaining the nature of Justice and Freedom is thus the second chapter, also digressive and somewhat confused, on the 'Watchword of the State'. Here he endeavours to show that, contrary to what might be expected, the Liberal Theory of the State is more concerned with the ends or results of the political process than with the rights on which it is based, and himself argues for 'culture' as its proper end. But as he more or less withdraws this chapter in a terminal note, it is probable that for him

the real nerve of the book lies in the application of this vaguely adumbrated philosophy to past history and still more to future programmes, in the chapters which certainly constitute its main bulk. And these chapters suffer not only from the digressiveness of their style and the vagueness of the philosophy applied in them but also from the general difficulty, shared by Mr. Whittaker with most writers on these topics, of successfully mingling theory and practice. Yet they have the great merit of being written in a spirit of philosophical debate rather than of party controversy; for Mr. Whittaker is very ready to see and acknowledge merit in positions and policies other than his own and is indeed, both in his theory and its applications, far more open to the accusation of eclecticism than of intolerance—as is the case even with political parties, at least in the composition of their programmes. So if the book is not altogether successful as an Essay in Political Philosophy, it is nevertheless not without value as a discursive and suggestive treatment, from a singularly independent point of view and with a vivid sense of the continuity of thought and of history, of some questions of considerable practical importance. And the theoretical issue is somewhat more adequately dealt with in the two articles which are reprinted as an appendix.

<div align="right">O. DE SELINCOURT.</div>

Les années d'apprentissage de Descartes (1596-1628). By J. SIRVEN. Paris, J. Vrin, 1928. Pp. 498. 50 fr.

This book seems to me a careful and valuable account, on a very ample scale, of Descartes's philosophical development up to the composition of the *Regulæ*. It may be regarded as a genetic explanation of much in the *Regulæ*; and therefore, of course, of much in the *Discours*. It is a valuable supplement to M. Gilson's admirable edition of the latter work, and contains searching criticisms of M. Brunschvicg and of certain other authors, ancient and modern.

In view of modern research, no one would say to-day, as M. Bergson said in 1916, that Cartesianism owes nothing essential to antiquity or to the middle ages. It is not "proles sine matre creata," even if Descartes himself rather sedulously tried to convey that impression. Perhaps M. Sirven is somewhat overzealous in the opposite direction. Is Cartesian analysis really identical with Tolet's *resolutio*? (p. 194). How much was frankly borrowed by Descartes (or semi-consciously borrowed) from Soto, Fonseca, and others? On points such as these, however, the reader must consult the evidence, and M. Sirven's very full quotations are likely to save him a vast deal of trouble. M. Sirven has studied the contemporary manuals, either accessible to Descartes or in use among his teachers at La Flèche, with very great care, and has pieced the evidence together in a connected narrative. Possibly some parts of the narrative are over elaborate. It is important to show that Descartes's physics in 1618 had not detached itself from the conceptions of the schools—perhaps even that Descartes had not fully understood these conceptions—but thirty pages or thereby, on smallish fragments, seems very good measure.

M. Sirven begins his decisive exposition with a long discussion of what probably happened on the night of 10th November, 1619, the nature and history of Descartes's celebrated visions, and the like. This discussion, although not short, has, as with Descartes himself, a certain dramatic quality. It is a convenient spool on which to begin to wind that thread of Theseus which in the developed theory of *Regulæ V.* was the clue to the labyrinth of the sciences. This thread of Theseus, our author explains, is the principle of *order* which deity has imposed on his handiwork the

mechanical world, and its essence (*vide* Fonseca and others) is the principle of simplicity which resolved itself for Descartes into a universal mathematics. Along with the history of the thread of Theseus go the historical enquiry into the *fundamenta scientiae mirabilis* which Descartes may have divined at that early date, and into the ethical question Quod vitae sectabor iter ? later to be developed in the *Studium Bonae Mentis* and in the well-known "interim" ethics of the *Discours*. M. Sirven's spacious and admirably documented pages go a long way towards enabling us to answer such questions.

M. Sirven concludes his book with a most useful bibliography of twenty-five pages.

JOHN LAIRD.

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VIII.—PHILOSOPHICAL PERIODICALS.

JOURNAL OF PHILOSOPHY. xxv. [1928], 4. **I. Edman.** 'From Experience to Nature.' [Traces the construction of the idea of Nature, which becomes a device for securing permanence in a precarious changing world. There follows a 'retreat from nature' into solipsism, and 'escape' from it, and finally a metaphysical attempt to understand the possible as well as the actual. "The metaphysician seeks to explore not only the constitution that nature happens to have, but what any system of nature would have to be to be at all."] **H. H. Parkhurst** gives a full Report of *the 27th Annual Meeting of the American Philosophical Association.* xxv., 5. **S. Hook.** 'The Philosophy of Dialectical Materialism,' I. [Traces the philosophic development of Marx and Engels in order to review Lenin's *Materialism and Empirio-Criticism* and to suggest that the Bolshevist Revolution "was due in part to Lenin's belief that Marxism must be interpreted as a voluntaristic humanism rather than as the teleological fatalism embraced by Social-Democrats everywhere else".] **A. L. Cross, D. H. Parker, R. M. Wenley.** 'Alfred Henry Lloyd, 1864-1927' [an obituary]. **S. C. Pepper.** 'Philosophy and Metaphor.' [Philosophers cannot avoid metaphors but should not mix them, *praeter necessitatem.*] xxv., 6. **S. Hook.** 'The Philosophy of Dialectical Materialism,' II. [Gives an account of Lenin's polemic against Mach and Avenarius and their Russian followers which is hardly calculated to raise his reputation as a philosopher, and is not much more favourable to Marx.] **F. C. S. Schiller.** 'William James and Empiricism.' [A reply to D. S. Miller's 'Fourteen Points' in xxiv., 23, which asks whether Miller thinks that verification by experience is no part of James's doctrine of the Will to Believe, and has no logical import and value, and whether experience has no logical value at all. After which the divergent meanings of 'right,' 'belief,' 'freedom,' 'cause,' 'creation,' 'law,' and 'novelty,' are discussed.] xxv., 7. **E. W. Hall.** '*Some Meanings of Meaning in Dewey's* Experience and Nature.' [After cataloguing, and criticising as too narrow, a number of uses he finds in Dewey, develops the thesis that "that which means (the symbol) is always a focal aspect of a larger contextual whole which is its meaning (in the sense of that which is meant or is symbolised)," thus making "central in the very meaning of meaning" what is in Dewey "a relatively insignificant distinction between the contextual and the focal". "Existence and meaning are relative terms. Existence refers to the fact of differentiation within any whole." Meaning refers to the fact that its parts "can represent the whole".] **C. J. Ducasse.** 'What has Beauty to Do with Art?' [As every sort of thing can be æsthetically contemplated and then generates æsthetic feeling and as æsthetic feeling may be pleasant, unpleasant or indifferent, Art is essentially independent of beauty.] **D. Drake.** 'Once more as to the Status of Data.' [Replies to the criticism of G. Boas in xxiv., 24, in a way which the latter does not feel, in an appended Note, to be answers to his objections.] xxv., 8. **J. Loewenberg.** 'The Paradox of Judgment.' [Concerns the problem of how the real

referred to (intended) in the judgment can be known to exist. "Before we can judge, if to judge is to judge the real, we must know by what tokens the real is marked off irom its opposite " (why not ' *after* ' ?) The writer's conclusion is that "judgment should be defined as a descriptive response or belief of a self in terms of propositional discourse in the presence of a problematic situation as encountered in awareness ".] **G. P. Conger.** ' A Hypothesis of Realms.' [Concludes that " logic, number, geometry-kine- matics, matter, life, and mind form a progressive series of realms offering at least a frame-work for a realistic metaphysics to be developed in accord- ance with the data of the various sciences both natural and abstract," and that at least logic and number " are prior to space-time ".] xxv., 9. **C. M. Perry.** ' A New Herakleiteanism.' [" Goes the whole length with Herakleitos." Everything becomes and " becoming is relative ". It is " the negation of, or departure from any possible status ; it is a flowing of identity into difference ". " In becoming," a thing both *is* and *is not*, and " no finite thing could even exist without contradiction ". Still there are ' directions,' *i.e.*, "characters of which we may have *more* or *less*," and these " have limits," and are " the warp and woof of the world ". So the final suggestion is " to admit that all relations are internal, or, in other words, significant to their terms, and then to break the spell of universal reciprocal modification by means of a doctrine of objective contradiction with its implication of limits ".] **H. N. Wieman.** ' Value and the Individual.' [Claims to be an essay on Value based on Whitehead. An individual is said to be "a unique organisation of all the elements that enter into the totality of all being," and its conclusion is that " the problem of progress and the supreme problem of all human living is to explicate and magnify this sort of organisation which brings the total realm of the unactualised most fully under the control of the concrete individuals which constitute the existent world. If we accept Whitehead's definitions this is a religious undertaking "—that should certainly add to the number of ' mystery-religions'.] xxv., 10. **C. F. Taeusch.** ' The Logic of the Case Method.' [Recognises the practical value and success of the method, but hardly seems to understand its essential logical nature. *E.g.*, the criticism that "given an unbridled opportunity to concoct hypothetical cases, the courts might have more completely exhausted the possibilities of human conduct . . . but the dangers of attempting to anticipate and outstrip reality have been too apparent " clearly implies the delusion that a *complete code* to cover all cases can be enacted in advance. Accordingly the *Code Civile* (*sic*) and "the clarity of French thought " are in the end preferred to Anglo- American case-law.] **A. C. Benjamin.** ' Necessity.' [" Is an attempt to differentiate as clearly as possible some of the outstanding meanings of the term ' necessity,'" *viz.*, the ' subjective-subjective,' the ' objective- subjective,' the ' subjective-objective' and the ' objective-objective '. Discusses also " three senses in which a concept is lacking in necessity," *viz.*, (1) *formally*, when it does not necessarily follow by deduction from accepted truths, (2) inductively, when the compulsion of the real upon the thinker is short of absolute, (3) because we cannot argue from necessity of thought to actual existence, but require verification.] xxv., 11. **C. M. Perry.** ' Some Difficulties in Current Value Theory.' [Criticises Warner Fite, Dewey and R. B. Perry, and concludes that they all end where they began. " ' The unexamined life is not fit for human living,' but have we examined life when we have enumerated the objects which cause anticipatory responses ? Perhaps the result of our examination is rather that we are not justified in using the term ' justify' and that we ought not to use the term ' ought'."] **G. Boas.** ' The Æsthetic of Leo Stein.' [Who " has definitely sounded the knell of absolutism in æsthetics

and not only said that there is no such thing as absolute beauty—which
Stendhal said a hundred years ago—but he has shown why".] **W. P.
Montague.** 'Professor Lovejoy's Carus Lectures.' [Which are praised
for leaving "little to be desired in the way of clarity, and conclusive-
ness".] xxv., 12. **O. Reiser.** 'Light, Wave-Mechanics, and Con-
sciousness.' [Starts from 'Purkinje's phenomenon' and interprets it
as meaning that "the physiological condition of the conscious experience
of light and the light itself as consciously experienced are one and the
same thing," appealing to Schrödinger's wave-mechanics for the idea that
'matter' may be 'undulatory'. Then the distinction between soul and
body can be "only a special case of the pervasive physical (relative)
dualism of energy and matter," and "conscious qualities may be *both*
subjective and objective". 'Emergent qualities' will be "but central
tendencies of statistical ensembles". Temperature, *e.g.*, "is a statistical
notion"; for a single molecule can have no temperature. So "wave-
mechanics may eventually turn up material which will be of great im-
portance for what we call psychic reality," though "additional types of
wave-motion" may have to be discovered "before we find the kind of
symphonic organisation which represents consciousness".] **H. B. Smith.**
'Postulates of Empirical Thought.' [1. There is nothing to be found
in the meaning of experience that is not already contained in the meaning
of experiment. 2. Nothing is given in experience that has not been
already related to experience in advance. 3. A judgment of fact that can
receive no experimental confirmation is neither true nor false, because it
is meaningless. 4. The existence of conflicting data points not to an
absolute object, but to an observing mind.] **D. A. Piatt.** 'Mr. Montague
on the Relativity of Truth.' [Rebukes the author of *Ways of Knowing*
for trying to turn a logical question into a moral issue, and making covert
assumptions in his criticism of pragmatism. He assumes (1) the 'objec-
tive' sense of 'truth' has nothing to do with the subjective, (2) that
'facts' are facts *for nobody*, (3) that the 'subjective' sense of truth is
divorced in pragmatism from the 'objective,' (4) that the pragmatist
question '*For whom* is this "truth" true?' needs no answer. When
the necessary relativity of truth to *present* facts is recognised, the 'con-
tradictions' and paradoxes of pragmatism disappear.] xxv., 13. **G.
Murphy.** 'A Note on Method in the Psychology of Religion.' [Points
out that psychology did not begin to progress until it shook off "the in-
tellectualism of nineteenth century psychology" and studied the affective
and volitional life. The psychology of religion also ceased to be mysterious
when that of children, animals, and the abnormal was compared. Animism,
possession, and taboo became intelligible. The mystical experience also
may be studied experimentally as a special case of an unverbalised visceral
and kinæsthetic attitude.] **J. Dewey.** 'Meaning and Existence.' [A
reply to E W. Hall in xxv., 7. Admits, quite amiably, one slight incon-
sistency, and points out the differences between his view and his critic's.
The latter begs the issue by "taking the symbol and the thing symbolised
as themselves 'meanings' in their own right, and not because of the
relation they enter into—that of inference".] **F. I. MacKinnon.** 'Be-
haviourism and Metaphysics.' [Argues that "behaviourism is the belated
recognition in psychological theory of that departure from Cartesian
dualism which in philosophy was made so many years ago that a partial
return to it is now in fashion. Orthodox psychology has continued on the
basis of medieval dualism," but behaviourism may turn out to imply
objective idealism as its metaphysical basis!]

REVUE DE MÉTAPHYSIQUE ET DE MORALE. 34e Année, No. 1, Janvier-
Mars, 1927. **R. Berthelot.** *La sagesse de Goethe et la civilisation de*

l'Europe moderne. [The first instalment of a valuable article on Goethe's concept of wisdom as a synthesis of the various spiritual influences focussed in him from the civilisation of his age. This ideal of wisdom has four sides. The first is the Romanticism of Goethe's youth, of the *Sturm und Drang* period from which in middle life he emancipates himself, even whilst retaining what there was in it of value. The second is the Classical ideal, mediated for Goethe by the Classical period of French literature even more than by his contact with the remains of Antiquity in Italy. The third is modern science, in its experimental and, especially, in its biological aspects. The fourth *motif* is that of social service and social regeneration, inspired by Rousseau and the Encyclopædists. This analysis is set by the author against a vast background, touching Socrates, Plato, the Stoics, Spinoza, Kant, on the one side, and, on the other, the rise of the modern middle-class (*bourgeoisie*), of machine industry, of instrumental music, of the concept of Nature as a mechanism. Some of his juxtapositions are extremely interesting, *e.g.*, the development side by side of the mechanical theory of Nature and of the amplified expression of feelings and emotions through music. In this contrast the author finds the basis for the antithesis in modern thought between reason and instinct. intelligence and intuition, in all its various forms.] **G. Aillet.** *Obligation civile et obligation morale.* [The title of this very interesting essay hardly indicates what it is really about, *viz.*, the defence of the thesis that the "logic" of the moral judgment, like the logic of juridical reasoning in civil cases, does not consist in applying hard-and-fast abstract laws or rules to particular cases, but in the effort to realise an ideal of good (or "justice," or "social welfare") through an effort of constructive thinking in which the law, or rule, is interpreted in the light of, and adapted to, the particular case, whilst in turn the elements of moral or social value in the particular case are analysed out, and ranked in importance or degree of obligatoriness, in the light of the law or rule. The whole process is one of mutual interaction of "reason" and "experience"— thoroughly plastic and progressive, and comparable to the processes by which the conceptual apparatus of modern physical science is moulded to fit the facts.] **F. Mentré.** *Espinas technologue.* [Extracts from certain lectures of the late A. Espinas, prefaced by an introduction in which M. F. Mentré briefly explains the genesis and the importance of Espinas' studies in the history and philosophy of technology (the theory of the useful arts). Having begun as an investigator of animal societies before going on to study human psychology and technology, and adopting Spencer's concept of evolution, Espinas assimilates human to animal arts, the making of tools to the growing of organs, the self-organisation of societies and their increasing command over their environment to the self-building of the individual organism and its use of its environment. These large scale analogies determine his classifications and interpretations of the facts.] Études Critiques. **R. le Senne.** *La "Philosophie contemporaine en France" et la pensée de M. Parodi.* [A useful critical review of Parodi's book on *Contemporary French Philosophy* (second edition, 1925). The fundamental movement of this philosophy is construed by Parodi in terms of an antinomy between "action" and "reason," "life" and "intelligence," and its reconciliation. Boutroux, Bergson, Brunschvicg are the outstanding figures in this dialectic. At the same time, there are certain characteristics common to all these movements: all hold to mental activity as a fundamental concept; all are opposed to atomism, be it in nature or in logic; all try to do justice to the specific quality of empirical phenomena; all prize personal originality. The book concludes with Parodi's own critical reflexions on the philosophical tendencies which he has surveyed.] Questions Pratiques. **A. Favières.**

La réforme parlementaire. [Discusses the defects, and the possible reforms, of parliamentary institutions in France, in the light of contemporary dissatisfaction with democratic government in general.   The three chief defects are : delays in the working of the institutions ; lack of continuity and cohesion in policy ; incompetence of the rulers.   Against these criticisms, and whilst discussing several possible reforms, especially with a view to securing the election of better qualified representatives, the author sets himself chiefly to re-affirm and defend the fundamental principles of democracy as the form of government best calculated to secure the common good under laws which express the " general will ".]   Reviews of books, French and Foreign.   Periodicals.   Obituary : Paul Lapie, Rector of the University of Paris.

34e Année, No. 2, Avril-Juin, 1927. **H. Lebesgue.** *Sur le développement de la notion d'intégrale.* [The subject of this article which was originally communicated in 1926 to the Mathematical Society at Copenhagen, is sufficiently indicated by its title.   The details do not lend themselves to being summarised in a brief notice, owing to their highly technical character.]   **E. Gilson.**   *Le rôle de la philosophie dans l'histoire de la civilisation.*   [A short, but brilliant paper, originally read at the sixth International Congress of Philosophy, at Harvard, in 1926.   There are three ways of writing the history of philosophy.   The first treats philosophy as the reflexion of contemporary movements of thought—religious, scientific, moral, political, etc.   The second sees in it the product of the original, creative inspiration of a genius.   The third values it as the progressive revelation of eternal truth. The author contends that these three points of view are not mutually exclusive, but rather mutually complementary, each emphasising a genuine aspect of philosophical thought.]   **R. Lenoir.**   *La philosophie devant la vie.*   [A long, well-written survey of contemporary trends of philosophical thought in relation to their background of contemporary civilisation.]   Études Critiques. **F. Buisson.** *L'œuvre de Paul Lapie.* [An appreciative survey of the writings of the late Rector of Paris University, and of his work for the reform of primary instruction in France.]   Questions Pratiques. **G. Morin.** *Le sens des transformations contemporaines du droit.* [Traces the directions in which the French administration of justice is modifying the principles of the Revolution of 1789 and of the *Code civil*, in order to adapt them more closely to the facts of an industrialised society—especially, in respect of contracts, property, and the status of women. " The protection of the weak is no longer, as it was once, merely the duty of the strong : it is now the right of the weak."] Correspondence. **E. Borel.** *A propos de la récente discussion entre M. R. Wavre et M. P. Lévy.* [A further contribution to the discussion, continued through several recent issues of the *Revue* (*cf.* Vol. 33, Nos. 2, 3, 4), on the problem of the applicability or non-applicability of the Law of Excluded Middle to certain apparently contradictory Theorems in Mathematics.   The author regards Mathematics, not as purely objective and logical, but as containing a subjective element of choice, which explains why the solution of such puzzles is really neither important, nor interesting.]   Reviews of Books, French and Foreign.   Periodicals.   Announcements.

34e Année, No. 3, Juillet-Septembre, 1927. **L. Brunschvicg.** *Mathématique et Métaphysique chez Descartes.* [A most valuable critical discussion of E. Gilson's edition of, and commentary on, Descartes' *Discours de la Méthode.*   After pointing out the influence of Montaigne on Descartes, Brunschvicg argues that, between the *Regulæ* (of about 1629) and the *Discours* (of 1637), Descartes' theory of method clarified itself by the distinction between *mathématique pure* (abstract algebraic

analysis) and *mathématique universelle* (mathematical physics, based on three-dimensional space). But thence arose the problem of bridging the gap between the "ideal" entities of this pure Mathematic and the physical world—a bridge which Descartes' metaphysical theory of the *Cogito* and *God* has to supply. In Metaphysics, Descartes employs strictly the analytic method of pure Mathematics, but on a different subject-matter. The entities of pure Mathematics are *possible* existents ; the ego, as *res cogitans*, is an *actual*, but contingent, existent ; God is the *necessary* existent. The intuition of the self as at once thinking and existing is continuous with the intuition of God as necessarily existing. Descartes does not "prove" the existence of God syllogistically by deduction from a universal major premise. Hence it is wrong to call his proof "ontological," and to identify it with those of S. Anselm and Leibniz ; nor is it touched by Kant's criticism. The implication of existence in the "idea" of God is not a particular case of a general principle : it is a unique implication directly intuited. God, once acknowledged as necessarily existent, guarantees the truth of mathematical physics, *i.e.*, of the actual existence of a physical world the nature of which is truly that ascribed to it by mathematical physics, but not truly that perceived by our senses.] **E. Rignano.** *Science et Morale.* [After recapitulating the doctrine of his *Psychology of Reasoning* according to which psychological analysis can distinguish only two fundamental kinds of mental elements, *viz.*, (*a*) sensations and images, (*b*) affective tendencies, and reasoning consists in combinations of the elements of (*a*), Rignano bases morality on the "affective appreciation" of objects of perception and thought, which appreciation issues in appropriate action. Here reasoning helps, partly by suggesting means for the attainment of our ends ; partly by solving conflicts of affective tendencies ; but above all by providing a *Weltanschauung* stimulating moral enterprise. Reason ("Science") supports moral effort in so far as it pictures a world not mechanical, but teleological in character ; guarantees the immortality of our noblest aspirations ; and makes us confident of progress towards the "joyous harmony of all living things".] **J. Richard.** *L'espace au point de vue concret.* [The central thesis is that Geometry is not an abstract rational science, but "a long introduction to the physical sciences". It deals with the forms, positions, movements of physical objects, and, within the limits of verification by observation and measurement, Euclidean Geometry is "absolutely true".] **R. Ponceau.** *Valeurs qualitatives et valeurs quantitatives.* [Derives all quantitative (economic) values from qualitative values derived from preferences which depend, not simply on individual taste, but on a social ranking, a hierarchical classification of values determined by the existing social organisation and the character of its civilisation. Judgments of value spring ultimately from the same social root.] Études Critiques. **G. Gurvitch.** *La philosophie du Droit de Hugo Grotius et la théorie moderne du Droit international.* [An appreciation of the originality of Grotius' work and of its influence on modern International Law, written for the tercentenary of the publication of *De jure belli ac pacis.*] **G. Belot.** *L'éducation morale et sociale du prolétariat par la doctrine marxiste.* [Aiming professedly at a "society of free men," Marxism (or Bolshevism) in theory recognises the need for moral, administrative, and technical education, if men are to realise this ideal. But actually the Marxist doctrines of the materialistic interpretation of History, and above all of the class war, produce a type of mind bent only on destroying the established order, and untrained to build a better world. Marxist education spreads only the spirit of class antagonism and civil war : it does not even, like war between nations, create solidarity and discipline in each nation. Social peace can be secured only

by combining independence of individual character with social coöperation and subordination, and by a critical and experimental spirit in social reform in the place of "deceptive myths and vague chimæras".] Reviews of books, French and Foreign. Periodicals.

REVUE NÉO-SCOLASTIQUE DE PHILOSOPHIE. xxxᵉ Année. Deuxième série, 17. Février, 1928. **R. Kremer.** *L'évolution du néo-réalisme en Angleterre.* [A well-informed and sympathetic account of the reaction in Great Britain against "idealism" from Shadworth Hodgson to Alexander, Whitehead and Broad. The author's account of the thought of the writers whom he passes in review is admirably condensed and accurate ; he is not quite so well posted in biographical matters as, *e.g.*, when he describes Mr. Laird as *actuellement* the occupant of a chair at Belfast.] **O. Lottin.** *La syndérèse chez Albert le Grand et Saint Thomas d'Aquin.* [Traces the history of the theory of *synderesis* in the hands of the thirteenth century Dominicans. Albertus Magnus is still under the influence of Philip de Grève and so retains the view that *synderesis* is a *potentia habitualis,* though he shows his Aristotelianism by rejecting the earlier view which connected it with *voluntas* and attaching it to ' practical reason '. The complete Aristotelianisation of the doctrine is only effected in Thomas, with whom *synderesis* is in no sense a *potentia,* but a *habitus* related to the ultimate principles of conduct in the same way as *intellectus* to those of speculation.] *In Memoriam Mgr. S. Deploige.* [d. suddenly, November 19th, 1927. A critical appreciation is promised.] **M. de Wulf** and **R. Renoirte.** *Le professeur D. Nys.* [An account of the career of this distinguished neo-Thomist, professor and writer on the philosophy of the natural sciences, with a bibliography of his publications.] **B. Debruyne.** *À propos de la définition et la division des sciences.* [A thoughtful and lucid account of the views of Windelband and Rickert on the distinction between natural sciences and *Geisteswissenschaften* and the criticisms of these views by E. Becker. The author's conclusions are not dogmatic, but he appears to agree with Becker against Windelband and Rickert that psychology may be regarded as the foundation of the *Geisteswissenschaften,* provided that we do not make the mistake of taking " experimental " psychology for the last word of psychological science. The one relevant question which M. Debruyne seems to leave out of account is perhaps the very difficult one whether it is really by "observation " that we "know ourselves".] **A. Mansion.** *Bulletin de littérature aristotélique.* [A discussion by this exceptionally competent scholar of recent textual and expository work on Aristotle. It is gratifying to British students of Greek philosophy to find a continental colleague of M. Mansion's distinction paying so generous as well as deserved a tribute to Mr. Ross's work on the *Metaphysics* and Mr. Lorimer's on the text-tradition of the *de Mundo.*] Book reviews, etc.

xxxᵉ Année. Deuxième Série, 18. Mai, 1928. **R. Kremer.** *La critique de la connaissance et la méthode de la philosophie.* [An extract from the writer's recently published work *le néo-réalisme anglais.* Realism is not necessarily *naïf ;* it should be critical and involve a complete theory of knowledge. The current neo-realism of Moore, Alexander, Russell and Laird tends to narrow down epistemology too much to a mere "refutation of idealism ". The "empirical " method, adopted by them all is analytic and (rightly) intellectualistic. Fear of conceding too much to monistic idealism tends to make them forget that it is a pre-supposition of the analytic method itself that reality has interconnected parts. The fundamental concepts in knowledge belong not so much, as Russell asserts, to logic as to metaphysics. Russell substitutes a science of the abstract for the science of the existing real. It is significant that he never uses his mathematical

logic in expounding his own philosophy. Alexander gives more recognition to metaphysics, but his empiricism is too uncritical. He constantly forgets that to state a fact, or to give it a name, is not to explain it. The authors in question are right in protesting against Bradley's criticism of the category of relation, but it is another matter to reduce the terms of real relations to logical abstractions. The terms of the relations primarily given to us in experience are *substances* determined by accidents, and a substance at once is determined by its accidents and is the ground of their existence. Hence the relation between substance and its accidents is strictly intrinsic, as distinguished from the " extrinsic " relations between things, each determined by its accidents. Complete knowledge of a thing would require knowledge of all its relations. But knowledge may be incomplete and yet sufficient "in its order". The neo-realists forget to ask after the ultimate source of resemblances between things; this can only be found in participation in a common form, and this participation pre-supposes the contingency of things and their production and arrangement with a view to an end. The neo-realists properly insist on the importance of " common sense," but our right to do so rests on a confused intuition of the unity of scientific and " vulgar " thinking, and could not be established by exclusive reliance on the analytic method, since it might be argued that the worth of science lies in its introducing us to a world *different* from that of pre-scientific thinking. Fr. Kremer finds the outlines of such a realism as commends itself to him in Ollé-Laprune : clearly Reid also would be more to his mind than our modern neo-realists.] **R. Feys.** *Le raisonnement en termes de faits dans la logistique russellienne* (suite). [A full and careful exposition of the doctrine of *Principia Mathematica* on the hierarchy of " types " of propositions.] **H. Pirenne.** *La duchesse Aleyde de Brabant et le " de regimine Judæorum" de Saint Thomas l'Aquin.* [When Henry III. of Brabant died in 1261, he left the regency in the hands of his widow Aleyde, with testamentary instructions, one being that the Jews and Caorsines were to be expelled unless they abandoned the practice of usury. There were grave financial difficulties about the execution of these instructions ; hence the appeal of the duchess for the advice of St. Thomas on eight points of which that of the expulsion of the Jews is only one. The *de regimine Judæorum* is the reply of the saint. The duchess was determined not to expel the Jews but to check their usury. Thomas is consulted on the questions whether it is lawful to levy a special impost on them, to inflict fines on a Jew who has no means of support except usury, to accept from a Jew presents or restitutions in excess of what is actually claimed by Christians, to sell or pledge offices of state, to levy imposts on Christians, to retain sums extorted by the duke's officials, to impose a distinctive dress on the Jews. Thomas replies briefly as follows : (1) Yes, if the levy is moderate and does not exceed contributions formerly exacted ; (2) yes, but the fine must go to recompense the Jew's victims ; (3) yes, if the sum received is used to compensate a victim or employed on a work of piety ; (4) the procedure is a dubious one, and the purchase of an office should be forbidden, though it is lawful to accept a free loan from the official appointed ; (5) yes, if the produce is not spent on the prince's personal luxury ; (6) restitution must be made in all cases ; (7) it is necessary to inflict some distinctive mark on the Jews. The reply must have been disappointing to the duchess who wished to be free to raise considerable sums by extortion from the Jews, as well as to avoid restitution of sums extorted from Christians. It is not known how the duchess finally acted, but a charter of John I. dated 1267 suggests that the Jews had been temporarily expelled from Louvain.] **M. Defourny et P. Harmignie.** *Mgr. Simon Deploige* (with portrait). **G. Legrand.** *Qu'est-ce que la poésie?* [Reflections suggested by the æsthetic doctrine

of Brémond. The author's main criticism is that B.'s devotion to romanticism leads him not only to be unjust to "classics" like Racine, but to set science and poetry, the rational and a-rational, in too sharp contrast. There are scientific aperçus which, like the great phrases of the poets, "open on the infinite".] **A. de Poorter.** *Notes de bibliographie médiévale.* **J. de Blic.** *La " Somme des Sentences" dans un catalogue de* 1151 ? [Chosset, giving 1158 as the date of the earliest known mention of the *Summa sententiarum* of Hugh of Montague, inferred the priority of the Sentences of Peter Lombard (*c.* 1150). There is what might be an earlier mention in a MS. catalogue referred by Becker to 1151. But it is not certain that this date, that of the chronicle prefixed to the catalogue, is that of the catalogue itself. Hence Chosset's conclusions are not refuted.]

RIVISTA DI FILOSOFIA. Anno xviii. No. 3. Luglio-Settembre, 1927. This is a number devoted exclusively to Spinoza, 1927 being the 250th anniversary of his death. **Adelchi Baratono.** *L'unità di Spinoza.* [Most accounts of Spinoza fall short in treating his philosophy as a set of points of view or theories. But in fact the real originality of "the last of the Stoics" is the unity of his philosophy. It can be accepted *en bloc* or rejected *en bloc,* but to isolate any single feature from the whole falsifies the whole.] **Luigi Fossati.** *Spinoza e la critica moderna della Bibbia.* [Examines Spinoza's methods of Biblical criticism and finds in him the founder of modern criticism.] **Cesare Goretti.** *Il trattato politico di Spinoza.* [Spinoza is in his theory of society "more modern and practical than many moderns". He contributes both to the theory and practice of politics. His merit as a *theorist* is that he exhibits rights and obligations not as the negation but the organisation and rationalisation of our human egoism. For the *practice* of government he counsels forms and methods which shall produce not uneasy submission but permanent stability.] **Piero Martinetti.** *Modi primitivi e derivati, infiniti e finiti.* [A clear exposition of Spinoza's account of the relations between the eternal and the temporal, the essential and the existent—which does not disguise the final breakdown of the attempt to derive the latter from the former.] **Rodolfo Mondolfo.** *Spinoza e la nozione del progresso umano.* [Develops Spinoza's "hammer" argument into a belief in and a programme of progress.] **Annibale Pastore.** *Il principio del metodo sperimentale nella filosofia di Spinoza.* [Finds in Spinoza an insight, akin to that of Galileo, into the place of experiment (as distinct from 'experientia vaga') in the acquisition of knowledge.] **Adolfo Ravà.** *Le opere di Spinoza.* [A full and useful account of the order and dates of the composition and publication of Spinoza's works, the state and transmission of the texts and the results of the work of editors, critics, and commentators, all with special reference to the edition of Gebhardt.] **Gioele Solari.** *La dottrina del contratto sociale in Spinoza.* [The place of the social contract in Spinoza's political theory has been wrongly or inadequately described by Gierke, Menzel, Pollock and Vaughan. As in his metaphysical, so in his political, theory Spinoza is not glozing over but deliberately trying to resolve a real dualism. Man is a creature of separatist passions, but he is also rational. Macchiavelli and Hobbes painted him correctly, but so too did Grotius. Spinoza's theory of Society and the Social contract is a conscious attempt to show that in this sphere too the natural is of a piece with the rational.] **Giuseppe Tarozzi.** *La necessità spinoziana e il determinismo contemporaneo.* [Tacks on to a brief exposition of Spinoza's theory of timeless necessity a criticism of modern scientific determinism, showing how this erects a principle of scientific method into a self-ruinous metaphysic, excluding both final causation and timeless or

rational necessity.] **Emilio Villa.** *La conversione di Spinoza.* [Describes in sympathetic tone, with reference to the De. Intell. Emend., the spiritual revolution that the soul must make to realise its perfection.] Bibliography, by Ravà and Esporito, of Italian editions, translations, criticisms, articles and reviews on Spinoza.

Anno xviii. No. 4. Ottobre-Dicembre, 1927. **Giovanni Vidari.** *Dei rapporti fra morale e religione* (as communicated to the Sixth International Philosophical Congress, 1926). [After stating and criticising Positivist, Hegelian, and Kantian theories of the relation of Morals and Religion, Vidari accepts the Kantian view after improving it with a doctrine of spirit as a dynamic self-developing agent.] **Adolfo Ravà.** *Spinoza scrittore.* [An appreciation of Spinoza as possessor of real literary style, together with an account of the models he used and the handicaps he faced in his formation of it.] **Emilio Morsetti.** *La filosofia della vita e la figura ideale dell' educatore.* [The educator must be guided by a philosophy, and Simmel's Life-Force theory is expounded and in the main recommended to be his guide.] **Mario Favilli.** *Il superamento pratico dello scetticismo in Michel de Montaigne.* [Montaigne is not only the sceptic and anti-rationalist but also the humanist and Stoic. Favilli gives a careful description of both parts of Montaigne's *Weltanschauung* and lays emphasis on the importance of the more positive and constructive side of it.] **Emilio Villa.** *La concezione panteistica di Davide de Dinant.* **Giuseppe Tarozzi.** *Rassegna di Gnoseologia e problemi generali.* [A bulletin of brief notices of recent books, among others of Pavese, Whittaker and Rossi.] Reviews, etc.

Anno xix. No. 1. Gennaio-Marzo, 1928. **P. Martinetti.** *La religione secondo E. Kant.* [A straightforward and sympathetic exposition of the theories of Kant of the relations between morality and religion, the place and functions of religious institutions, practices and symbols and the nature and origin of fanaticism and superstition.] **Emilio Morselli.** *Plotino e la vita interiore.* [Finds in Plotinus a philosophy of the life of the spirit and of the ultimate unity of Intelligence with its object which is an anticipation, if not the seed-bed, of modern (Hegelian) Idealism.] **G. E. Barié.** *Della possibilità di un' interpretazione positiva del " Teeteto ".* [Argues that the " Theaetetus " is primarily an essay in the theory of knowledge in which Plato, breaking away from the Socratic theory, is beginning to look to dialectic for true knowledge. The " Sophist," and especially the " Parmenides," develop this programme and are, consequently, to be regarded as both logically and chronologically posterior to the " Theaetetus " : which position Barié defends against Diès and others.] **Ernesto Grassi.** *La più recente attività della filosofia dell' azione in Francia.* [Describes the development of Blondel's philosophy of Action since the publication of his book of that name, both in Blondel himself and in Laberthonnière, Paliard, Brémond, and others of the school. The problems of religion and, with it, of transcendence, which are occupying them, seem unlikely to prove soluble by the sole principle of Activity.] **Giuseppe Tarozzi.** *Rassegna di Estetica e Critica.* [Bulletin of notices of recent Italian works on Art and literary criticism.] **Mariano Maresca.** *Il Congresso della lega internazionale per l'educazione nuova.* [Précis of the contributions made to this conference.] Obituary notice of Benussi : notices.

Anno xix. No. 2. Aprile-Giugno, 1928. This number is devoted to Robert Ardigò who was born in 1828. **G. Tarozzi.** *Prefazione.* **Giovanni Marchesini.** *L'idealismo di Roberto Ardigò.* [Reprint of an eloquent, even flowery, oration by Marchesini dilating on the life and philosophy of Ardigò. His philosophy is warmly praised as being idealist as well as positivist, sensationalism tinged with a semi-mystical absolutism.

He allows no Mind-Matter dualism ; there are only Sensations and systems of them.] **Luigi Credaro.** *R. Ardigò. Ricordi minimi.* [Some interesting notes for the biography of Ardigò, including an account of the conflict occasioned by the unorthodox treatment of religious matters by this "follower of Herbert Spencer".] **Ettore Galli.** *Il pensiero pedagogico di R. Ardigò.* **Alessandro Levi.** *Diritto e società nel pensiero di R. Ardigò.* **Ludovico Limentani.** *Rileggendo* "*la Morale dei Positivisti* ". [Ardigò, although or rather because he came to reject all religious and theological beliefs, laid all the more emphasis on the ultimacy of the claims of morality. As a good positivist and follower of Spencer, he tries to derive our moral ideas and our anti-egoism from our existing in a social environment and seems to come near to denying individuality to anything short of society.] **Rodolfo Mondolfo.** *Il realismo di R. Ardigò.* [Rejecting as vicious the subject-object dualism which Materialism and Idealism attempt (of necessity in vain) to surmount, Ardigò bids us start with what already is the undivided source of the two—" experience " (*i.e.*, sensation). In this can be discerned subject-aspect and object-aspect but, so far from being opposed, it is of their nature to hang together. Nature is one and Mind-knowing-world is a piece of interconnectedness strictly comparable with the conformity of the movements of the mercury in the barometer with changes in the weather.]

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. Anno xx. Fasc. ii.-iii. Marzo-Giugno, 1928. *Una discussione intorno al carattere fondamentale della filosofia scolastica.* [What is " Scholastic Philosophy " ? In a previous issue Mons. Masnovo offered a formula giving a general answer to this question. His answer and some alternatives are the subject of a discussion between some dozen thinkers, whose contributions are here summarised, and Masnovo replies.] **Francesco Olgiati.** *Il metodo per ripensare le dottrine di Nicolò Machiavelli* (continued). [The clue for the understanding of Machiavelli—one missed by most of his expositors as well as by his critics—is this : Machiavelli did *not* deny morality *nor* make immorality his morality. What he did was to divide human actions into two autonomous provinces, moral actions and political actions. The former are and the latter are not subject to the laws of right and wrong ; the latter are and the former are not subject to the Utility of the State. This theory (defended now by Croce) is certainly false ; but at least it is not the theory and is better than the theory he is usually attacked for holding. Machiavelli's lasting achievement was to re-unite political theory with the study of political facts ; its generalisations must be built on the concrete realities of history.] **Dott. Giuseppe Zamboni.** *Possibilità e legittimità della gnoseologia pura studiata con la filosofia, la psicologia comune, e la psicologia pura.* [A quite dogmatic ' Bradshaw ' to all the real and imaginary " -ologies " that pertain to philosophy and psychology. The objects, functions, spheres, and relations of gnoseology, pure psychology, experimental psychology, criteriology, logic and philosophy are (supposed to be) here stated and defined.] **Fatti e Commenti. Dott. Giuseppina Pastori** gives an account of the work of Sir Jagadis Chunder Bose. Reviews.

LOGOS. Anno xi. Fasc. 1. Gennaio-Marzo, 1928. **A. Aliotta.** *L'irrazionalismo contemporaneo* (continued). [Critical account of Boutroux and Milhaud.] **L. Giuffré.** *Dante e la teoria dell' attenzione.* [Discusses certain modern theories of Attention and compares them with that of Dante (Purg. Canto IV.) and finds the latter worthy of at least equal respect.] **G. Gallucci.** *Lo spirito del Cristianesimo secondo Tolstoi e Dostoiewscki.* **M. Fatta.** *Metafisica tomista e teoria della conoscenza.*

[S. Thomas basing his theory of knowledge—rightly—on his Metaphysic and not *vice versâ* was free from "the radical vice of Kantianism—the pretended inaccessibility of the real". His realist theory of knowledge with its metaphysical basis is briefly expounded and defended.] Discussions, Reviews of (among others) recent books by Verda, Perry, Woodbridge, Tudor Jones, Turner, Pauler, Cornelius, and (especially) Noble. Notices.

ANNALEN DER PHILOSOPHIE. June, 1928. Band vii., Heft 4 and 5. *Die philosophischen Hauptströmungen im Monistenbund*, by **Lily Herzberg**. [First part of a very simple sketch of the antecedents of the Deutscher Monistenbund (founded by Haeckel) which champions a positivistic monism, expresses it in biological terms, and assigns to knowledge a purely practical function.] *Zur kalkulmässigen Charakterisierung der Definitionen*, by **Walter Dubislav**. [A technical study of the nature and function of definitions in the logical calculus on the basis of Whitehead and Russell's "Principia".] *Der Begriff der Null und der negativen ganzen Zahlen*, by **Gerhard Stammler**. ["The general notion of equality and those of greater and less are not based on the quantitative aspect of the elements compared. In the comparison of numbers we have nothing to do with the quantitative comparison of magnitudes but with a comparison of numbers in respect of their position in a logical order." From this point of view it is possible to give intelligible meaning to zero and negative numbers : the former is not "nothing" but the middle term of a series constructed according to a law, and "less than zero" means "logically prior to it" in that series]. *Correspondence between R. Schmidt and Adickes* on Kant's conception of God. [According to the former Kant regarded God as identical with pure practical reason, as merely the principle of moral conduct, destitute of theoretical value ; according to the latter God for Kant was a noumenal existent.] *Reports of two addresses*, one by **R. Schmidt** on "Chance" and one by **Hans Driesch** on "Body and Soul". Reviews of books.

IX.—NOTES.

THE ANTILOGISM.

I TAKE it very ill of Mr. W. E. Johnson that he has robbed me, without acknowledgment, of my beautiful word "antilogism". He says: "Correlative to the syllogism we may here introduce the antilogism" (p. 75, Vol. II. of his *Logic*), without any reference to the fact that the antilogism is the basic feature of my theory of deductive reasoning (see Eugene Shen in MIND, pp. 54-60, 1927). The view of logic which I have based upon the antilogism is that to make use of the syllogism is a great mistake when a so much better form of reasoning lies at hand. If for the usual three statements consisting of *two premises and a conclusion* one substitutes the equivalent *three statements that are together incompatible* (namely, the same two premises and the immediate denial of the conclusion), one has a formula which has this great advantage : the order of the statements is immaterial—the *relation* is a perfectly symmetrical one. Moreover, any two (or one) of the three statements may be uttered by one party to a discussion and the remaining one (or two) by the other— the incompatibility (or inconsistency) still remains.

This is, in fact, the natural form of reasoning in the case of rebuttal or discussion—and it may well be maintained that it was invented before the more abstract and remote syllogism. I give at once an example of it—a real occurrence. A little girl of four years of age was making, at her dinner, the interesting experiment of eating her soup with a fork. Her nurse said to her, " Nobody eats soup with a fork, Emily," and Emily immediately replied, " But I do, and I am somebody ". (The connecting logic-word in the case of the antilogism is *but*, or something equivalent to it, instead of *therefore, so,* or *consequently*.) This instance (which may be taken as typical) is enough to show that the antilogism is quite as easy and as natural (in the proper circumstances) as any other form of deductive reasoning.

But the possible beauty of the antilogism has not yet been exhausted. The *collection of statements*, as already given, is symmetrical, and that is a source of great simplicity—there is only *one* valid form of the antilogism instead of the fifteen valid forms of the syllogism which common logic requires us to bear in mind. But still greater simplicity can be obtained if each of the three statements involved is also made symmetrical—' No *a* is *b* ' and ' some *a* is *b* ' are both symmetrical, they can both be " simply converted ". All we have to do is to turn all our propositions into one or the other of these two forms (if they are not in them to begin with), and we have an argument that is *doubly* symmetrical—that is to say (1) *symmetrical in the formula itself* and also (2) in its constituent propositions. There is another equally good, doubly symmetrical, form of argument— that in which the constituent propositions are first reduced to one or the other of these two forms—" all but *a* is *b* " and " not all but *a* is *b* ". There is no reason whatever against using this form of speech except that

it is a little less familiar to us than the one I have chosen as canonical in my system of logic.[1]

The importance of symmetry in arguing is evident when one notices that "wrong conversion"—the one sole danger (and a very real one) that actually confronts the reasoner in real life—is impossible in this form of speech—whether in the simple proposition or in the compound one. It is one of the curiosities of the history of scientific thinking that it has not been discovered before that this peculiar character of symmetry (that is, of simple convertibility) possessed by these forms of language ought to have caused them always and everywhere to be preferred.

Any three (or more) incompatible propositions would form an antilogism in a general sense, but it is when they have been "prepared" in the way just described that I call them *the* antilogism, or the antilogism *in the canonical form*. Strange to say, Mr. W. E. Johnson in adopting an antilogism as a companion-form (instead of as a substitute form) for the syllogism has quite failed to notice its extraordinary advantages. I refer again to Dr. Shen's paper in MIND, and to the Dictionary of Philosophy and Psychology, articles *Proposition, Syllogism, Symbolic Logic.*

Senator Nelson, speaking in the U.S.A. Senate, said : "It is impossible that any of these measures should be idiotic, for none of them is unnecessary, and nothing that is necessary is idiotic ". In this instance the antilogism is not used in discussion, but in plain forward reasoning.

And here are two examples in the logician's favourite *s, m* and *p* (in terms of which letters he has himself never yet composed a seeming sensible instance): "Statesmen are none of them managers of campaigns and there are no politicians who are not managers of campaigns ; *hence it is not possible that* any statesmen are politicians ".

Or : "That there are no saints who are not martyrs and that no priests are martyrs *is incompatible with* any saints being priests ".

And here is another : "None who are discontented are happy ". "*But* no reformers are contented, and some reformers are happy."

It will be noted that the one simple rule of validity in the antilogism is that, of the three statements (one particular and two universal), the two universals must have their common term *of unlike sign* (once positive and once negative—martyrs, non-martyrs) ; but either universal with the particular must have their common term of *like* sign (as priests, saints).[2]

Antilogy is a recognised word, but *antilogism* seems never to have been used. It does not occur in the New English Dictionary, nor in any of the older dictionaries. It seems moreover not even to have been used in Greek. I find in the lexicon of Liddell and Scott (the only one which I have at hand) ἀντιλογία, *contradiction, controversy, disputation, discussion ;* in general, *opposition, resistance ;* ἀντίλογος, *contradictory ;* ἀντιλογικός, *given to contradiction, disputatious ;* ἡ ἀντιλογική, (with or without τέχνη), *the art of contradiction, sophistry.* But a word corresponding to *antilogism* seems not to have been used. As soon, however, as the need arose for a companion-word to the classical syllogism, the form antilogism, of course, so to speak, formed itself.

There is no good excuse for Mr. Johnson's having failed to recognise my claim to priority in the use of this word, for Keynes, with whom and with whose indispensable book, *Formal Logic* (fourth edition, 1906), Mr.

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[1] Not everybody can tell at once, by instinct logic, whether these two statements are equivalent or not : "All but acid things are blue," "all but blue things are acid ".

[2] In other words, with like propositions go unlike terms (as regards sign) ; with unlike propositions go like terms.

Johnson, by unusual good fortune, seems to have been in constant touch, not only uses the word but gives me explicit credit for both the word and the thing.

<div style="text-align: right">C. F. Ladd-Franklin.</div>

A CONTEMPORARY CHARACTERISATION OF HOBBES.

To the Editor of "Mind".

Dear Sir,

While making some investigations in the British Museum on behalf of M. de Waard of Flushing, I came across the following *Extract of a Letter from Mr. Hooke to the Honourable Robert Boyle, Esq., about the year* 1664 (*Miscellaneous Collections relating to Gresham College*, Vol. I., by I. W.; B.M., MS. Add. 6193, pp. 134-135). As, so far as I know, it has not been published, and may be of interest to your readers, I send it to you.

<div style="text-align: right">Yours faithfully,
Leon Roth.</div>

Hon^{ed} S^r,

I have not receiv'd any of y^r commands since I tooke my leave of you for London, I know not whether there has any thing miscarried, nor h ve I written any thing since this day s'en night, there having happen'd little or nothing considerable in that time. Only I should have sooner given you an account of an interuew I had of Mr Hobbes, wch was at Mr. Reeue's, he comming along with my Lord De : to be assista t in the chusing a glasse. I was, I confess, a little surpriz'd at first to see an old man soe vewe me, & survey me every way, without saying any thing to me; but I quickly shuk off that surprizall, when I heard my Lord call him Mr. H : supposing he had been inform'd to whom I belonged. I soon found, by staying that little while he was there, that the character I had formerly receiu'd of him was very significant. I found him to lard and seale every asseueration with a round othe, to undervalue all other men's opinions and judgments, to defend to the utmost what he asserted though never soe absurd, to have an high conceipt of his own abilitys & performances though neuer soe absurd and pittiful, &c., he would not be perswaided but that a common spectackle glass was as good an eye-glass for a 36 foot glass as the best in the world, and pretended to see better then all the rest by holding his spectakle in his hand, which shuk as fast one way as his head did the other, which I confess made me bite my tongue. But indeed Mr. Pell's description of his deportment when discoursd with about mathematicall demonstrations (which he gaue the last wensday) surpasses all the rest, &c.

BACK NUMBERS OF *MIND*.

The Philosophy Department of the University of Western Australia (Perth, W.A.) desires to obtain two back numbers of "Mind," *viz.* vol. xxi., no. 81 (N.S.) and vol. xxxiv., no. 133 (N.S) in order to complete its series for binding. If any reader of this Journal can

assist in the matter, a communication to Associate-Professor A. C. Fox will be appreciated.

The University also has a number of duplicate copies, *viz.* xxvii., 106-108; xxix., 113 (two copies); xxix., 114-116 (all N.S.) which it will be glad to send to any institution or person in need of them.

ERRATA.

In the last number of MIND, in the Discussion on "The Theory of Types," on page 340, last line but one, for "values" read "arguments" and on page 344, line 27, for "in" read "or".

MSS. and other Communications for the Editor should be addressed to
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WITH THE CO-OPERATION OF F. C. BARTLETT, M.A., AND C. D. BROAD, LITT.D.

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